
Stockpile and Post-Remedial
Excavation Confirmation Report
Parcel A, Report No. 3

Boeing Realty Corporation C-6 Facility
Los Angeles, California

March 1998



MONTGOMERY WATSON

**STOCKPILE AND POST-REMEDIAL
EXCAVATION CONFIRMATION REPORT
PARCEL A
REPORT NO. 3**

**BOEING REALTY CORPORATION C-6 FACILITY
LOS ANGELES, CALIFORNIA**

March 1998

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SECTION 1.0

INTRODUCTION

In October 1996, Montgomery Watson (Montgomery) was retained by McDonnell Douglas Realty Company, now the Boeing Realty Corporation (BRC), to assist with the redevelopment of Parcel A (the Site) of their C-6 Facility located in Los Angeles, California. Figure 1 presents the C-6 Facility. Figure 2 delineates the Site. The Site was formerly used to manufacture and store aircraft parts.

1.1 OVERVIEW

The Site consists of the northernmost quarter of the C-6 Facility, encompassing approximately 50 acres. Demolition of the following buildings has occurred: Building 29, 33, 34, 36, 37, 40, 41, 43/44, 45, 57, 58, 61, 66-A, and 67.

Information gathered during the data compilation and evaluation phase of this project indicated the presence of petroleum products and other chemicals of concern at the surface and in the subsurface.

A soil sampling and remedial excavation effort was conducted in conjunction with the removal of foundations, slabs, and below-ground structures. The purpose of this effort was to assess soil quality and remove soil affected with petroleum hydrocarbons and other chemicals of concern in preparation for redevelopment of the Site. Soil which was determined to be affected with petroleum hydrocarbons and other chemicals was excavated and stockpiled at the Site. Confirmation samples were collected along the walls and floor of each remedial excavation to confirm that the surface soil (upper 12 feet) met soil screening criteria at sample locations.

Stockpiled soil and confirmation samples discussed in this report were generated from remedial excavations conducted within Building 37 and the adjacent area to the east, known as "the Gravel Yard."

1.2 PURPOSE AND OBJECTIVE

The lead agency for this project is the Los Angeles Regional Water Quality Control Board (RWQCB). The process of screening excavated soil and confirming *in situ* soil quality as presented in this document has been approved by the RWQCB. Following the initial review and implementation of this process, the RWQCB has allowed BRC to undertake excavation and backfilling operations without intermittent agency review. All BRC decisions based upon the approved soil screening process are documented for final agency review and approval. This approach was developed to expedite the soil quality evaluation process, and

this report has been prepared to document the process used by BRC to evaluate excavated and residual soil at Site locations discussed herein.

Specifically, the purpose and objectives of this report are:

- 1) To document the quality of the stockpiled soil generated from remedial excavations according to the Facility-wide soil screening criteria, and the process by which the stockpiled soils were divided into two categories: (a) soils requiring treatment or off-site disposal, and (b) soils suitable for use as construction backfill at the Site.
- 2) To document that surface soil (upper 12 feet) in each remedial excavation meets the established soil screening criteria.

SECTION 2.0

BUILDING 37 AND GRAVEL YARD REMEDIAL EXCAVATIONS

Building 37 housed foundry operations in the south central portion of the building, and large machine presses and lathes throughout the building. Foundry and press machines were contained in 15 large pits (approximately 8 feet deep, 20 feet wide, and 60 feet long). A ground floor room on the east side of the building housed the tooling department where employees would produce parts for the machines throughout the facility. A parts cleaning tank sat in a sump within this room. Two clarifiers were located outside the east wall of the building. A hydraulically-powered elevator was located inside the northeast portion of the building.

The adjacent area to the east of Building 37 was the Gravel Yard used for storage of miscellaneous materials and parts from the manufacturing operations of the facility. The facility storm drain outfall to the storm sewer is located near the northeast corner of this area. Historically, a railroad spur crossed the area of the Gravel Yard trending from south to north.

The location of each remedial excavation discussed in this report is presented in Figure 3. To facilitate locating samples and other features in the field, a 20-foot by 20-foot grid has been superimposed over the footprint of Building 37 and the Gravel Yard east of Building 37 as presented in Figure 3. Remedial excavations were recorded using the following nomenclature:

Building No. (B#) - Remedial Excavation (RE) - Chronological Number (#)
e.g., B37-RE-4

Pertinent information related to the remedial excavations conducted within and adjacent to Building 37 and the associated stockpiled soil discussed in this report is presented below. The locations of each stockpile are presented in Figure 4 through Figure 6 and Figure 8.

Excavation/Stockpile(s)	Approximate Volume	Date of Excavation	Stockpile Location(s)
B37-RE-4/AM	70 cu yds	9 May 97	West of Building 61 footprint
B37-RE-4/AN — AP	86 cu yds total	2 Jun 97 — 25 Jun 97	Within Building 37 footprint
B37-RE-4/AQ	15 cu yds	8 Jan 98	Adjacent to Building 37 footprint
B37-RE-5/A — D	1085 cu yds total	24 Apr 97 — 12 May 97	West of Building 61 footprint

Remedial excavation B37-RE-4 originated within Building 37 and extended beyond the building footprint toward the east, into the Gravel Yard. For this reason, remedial excavation B37-RE-4 remained designated as a Building 37 excavation and was not designated differently within the Gravel Yard.

2.1 SOIL SAMPLING

Grid sampling, hot spot sampling, and confirmation sampling have been employed at Building 37. Detailed procedures for these activities are outlined in the *Sampling and Analysis Plan for Demolition Activities at the Douglas Aircraft Company C-6 Facility* prepared by Integrated Environmental Services, Inc. (IESI, 1997(a)) and previously submitted to the Regional Water Quality Control Board (RWQCB). In addition, stockpile sampling was performed on the excavated material. These procedures can be summarized as follows:

2.1.1 Grid Sampling

Grid sampling was collected at predetermined, regular intervals of a grid placed over the footprint of Building 37. A 20-foot by 20-foot grid was employed.

Grid samples were collected by first exposing "fresh" soil beneath the surface using a stainless steel utensil or similar device. A photoionization detector (PID) was used to measure headspace organic vapor concentrations in the freshly exposed soil at each grid node. Soil samples were collected for analysis where at least one of the following conditions existed: 1) the headspace volatile organic compound (VOC) reading exceeded 5 ppm, (2) areas where staining of the soil was visible, or (3) areas where odors were noticeable.

Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve.

Building No. (B#) - Grid Coordinate (alpha numeric) - Sample Depth (feet)
e.g., B37-G17-4'

The grid coordinate system used in the naming of samples from Building 37 is presented in Figure 3.

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Grid samples have been analyzed according to the analytical schedule presented in Table 1.

2.1.2 Hot Spot Sampling

Hot spot sampling was conducted at predetermined locations where former items of concern were located (e.g., pits, sumps), and at other locations where demolition activities revealed soil which may have been affected by petroleum hydrocarbons or other chemicals of concern.

Hot spot samples were collected by first exposing "fresh" soil beneath the surface using a stainless steel utensil or similar device. A PID was used to measure headspace organic vapor concentrations in the freshly exposed soil at each location. Soil samples were collected for analysis where at least one of the following conditions existed: 1) the headspace VOC reading exceeded 5 ppm, (2) areas where staining of the soil was visible, or (3) areas where odors were noticeable.

Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve.

Building No. (B#) - Grab Sample (GS) - Chronological Number (#) - Sample Depth (feet)
e.g., B37-GS-42-3'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Hot spot samples have been analyzed according to the analytical schedule presented in Table 1.

Hot spot sample locations discussed in this report have been subsequently excavated and data collected from these samples are considered representative of the corresponding stockpile soil quality.

2.1.3 Stockpile Sampling

Excavated soil was placed in stockpiles each consisting of approximately 250 cubic yards of soil. Generally, stockpile samples were collected at a frequency of approximately one sample per stockpile. Stockpile samples were collected from the most noticeably affected soil within the stockpile. Samples were collected by using a shovel to cut vertically into the side of a stockpile at each sample location to expose "fresh" soil; samples were then collected from the exposed vertical wall and headspace VOC concentrations were measured using the PID.

Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve.

Building No.(B#) - Remedial Excavation No.(RE#) - Stockpile Chronological Number (SP#)
e.g., B37-RE4-SP38

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis.

Stockpile samples have been analyzed according to the analytical schedule presented in Table 1.

2.1.4 Confirmation Sampling

Confirmation sampling was conducted to ensure that residual surface soil (upper 12 feet) met soil screening criteria at each excavation. Confirmation sampling was conducted at a frequency of at least one sample location each 20 feet along the walls and floor of each excavation.

Soil removal continued at a particular location until the following conditions were met: 1) the headspace VOC reading in freshly exposed soil was less than or equal to 5 ppm, and soil staining was not visible, and odors were not noticeable, or 2) the maximum excavation depth of 12 feet had been reached. A confirmation sample was collected when these conditions were met. Iterations of additional soil excavation were conducted as required until confirmation sample analytical data indicated that *in situ* soil quality met the cleanup criteria established in Section 3.1 of this report, or the maximum excavation depth of 12 feet had been reached. As a result, some confirmation sample locations may have been excavated and data collected from those samples were considered representative of the corresponding stockpile soil quality.

Confirmation soil samples were collected by first exposing "fresh" soil beneath the surface of a wall and floor of an excavation using a stainless steel utensil or similar device. Soil samples were collected for analysis in pre-cleaned, stainless steel sleeves by driving the sleeve into the soil with a rubber mallet or drive sampler. The ends of the sleeves were then covered with Teflon film and secured with plastic end caps. A unique sample identification using the following nomenclature was written in indelible ink on a sample label and attached to the sleeve.

Building No. (B#) - Grab Sample (GS) - Chronological Number (#) - Sample Depth (feet)
e.g., B37-GS-42-3'

Sample sleeves were placed in a cooler with blue ice and transported under chain-of-custody to a State-certified laboratory for analysis. Confirmation samples have been analyzed according to the analytical schedule presented in Table 1; however, some confirmation sample analyses were limited to target-specific chemicals once such analytes were identified either through previous sampling activities or historical Site knowledge.

2.2 SOIL EXCAVATION

Remedial excavation to remove affected soil was conducted when one of the following conditions was discovered: (1) elevated PID readings greater than 5 ppm in grid or hot spot samples, (2) visible staining, and (3) noticeable odors. A conservative approach was employed such that soil which exhibited any of these characteristics was excavated and stockpiled.

Remedial excavations were performed using heavy equipment (excavators, front-end loaders, end-dump trucks) associated with the building demolition effort. Air monitoring in accordance with South Coast Air Quality Management District Rule 1166 was conducted throughout remedial excavation activities.

The maximum depth of any excavation was approximately 12 feet below grade. Excavated soil was segregated based on the location from where it was removed. Soil stockpiles were placed on asphalt or plastic sheeting, and covered with plastic sheeting to protect the soil from the elements. The locations of each stockpile are presented in Figure 4 through Figure 6 and Figure 8.

2.3 STOCKPILE SOIL QUALITY

2.3.1 B37-RE-4 Stockpiles AM through AQ

Initial soil removal at remedial excavation B37-RE-4 began in March 1997 as previously reported by Montgomery Watson (1997(c,d)). Additional soil removal at remedial excavation B37-RE-4 was conducted based on elevated PID readings, visual observations, or noticeable odors and was terminated on June 25, 1997. A followup excavation was performed on January 8, 1998 to remove additional soil affected with metals.

STOCKPILE AM

Approximately 70 cubic yards of stockpiled soil associated with this additional excavation was removed with an excavator, transported and stockpiled west of the footprint of Building 61 (Stockpile AM) as shown in Figure 4.

The following types of samples have been collected and analyzed to evaluate the soil quality in B37-RE-4 Stockpile AM:

- Stockpile sample only

One stockpile sample was collected from Stockpile AM at the location presented in Figure 4. The analytical data for this sample are summarized in Table 2.

STOCKPILES AN, AO, AND AP

Confirmation samples collected during remedial excavation B37-RE-4 indicated that elevated concentrations of arsenic, SVOCs, and lead were present in shallow soil adjacent to the east of Building 37 within the Gravel Yard. Due to these elevated concentrations, additional soil was excavated from the discrete areas where these elevated concentrations were detected in the confirmation samples.

The excavated soils were stockpiled separately within the Building 37 footprint as follows:

Stockpile AN	approximately 50 cubic yards of arsenic-affected soil
Stockpile AO	approximately 30 cubic yards of SVOC-affected soil
Stockpile AP	approximately 6 cubic yards of arsenic- and lead-affected soil

The locations of these stockpiles are presented in Figure 5.

The following types of samples have been collected and analyzed to evaluate the soil quality in B37-RE-4 Stockpiles AN, AO, and AP:

- Excavated confirmation samples
- Stockpile samples

One stockpile sample was collected from Stockpile AN, one stockpile sample was collected from Stockpile AO, and one stockpile sample was collected from Stockpile AP. The locations of these samples are presented in Figure 5.

Analytical data from excavated confirmation samples and stockpile samples which are representative of stockpile soil quality are presented in the following tables:

Stockpile AN:	Table 3 (excavated confirmation samples) Table 4 (stockpile sample)
Stockpile AO:	Table 5 (excavated confirmation sample) Table 6 (stockpile sample)
Stockpile AP:	Table 7 (excavated confirmation sample) Table 8 (stockpile sample)

STOCKPILE AQ

Additional confirmation samples indicated that elevated concentrations of arsenic and cadmium were present in the excavation bottom in one area. Due to these elevated concentrations, additional soil was excavated from the discrete area where these elevated concentrations were detected in the confirmation samples.

The excavated soils was stockpiled separately adjacent to the Building 37 footprint as follows:

Stockpile AQ approximately 15 cubic yards of arsenic/cadmium-affected soil

The location of this stockpile is presented in Figure 6.

The following type of sample has been collected and analyzed to evaluate the soil quality in B37-RE-4 Stockpile AQ:

- Excavated confirmation samples

Analytical data from the excavated confirmation samples which are representative of stockpile soil quality are presented in the following tables:

Stockpile AQ: Table 9 (excavated confirmation samples)

A complete set of laboratory analytical reports is presented in Appendix A-1.

2.3.2 B37-RE-5 Stockpiles A through D

Due to elevated PID readings, visual observations, or noticeable odor, remedial excavation B37-RE-5 was conducted from April 24, 1997 through May 12, 1997. Approximately 1085 cubic yards of soil associated with this excavation was removed with an excavator, transported and stockpiled west of the footprint of Building 61 (Stockpiles A through D) as presented in Figure 8.

The following types of samples have been collected and analyzed to evaluate the soil quality in B37-RE-5 Stockpiles A through D:

- Excavated hot spot sample
- Stockpile samples

One hot spot sample was collected at the location presented in Figure 7 and the soil around this sample location was later excavated. The analytical data for this sample are summarized in Table 10. Four stockpile samples were collected from the stockpiled soil at locations presented in Figure 8. Analytical data for the stockpile samples are summarized in Table 11.

A complete set of laboratory analytical reports is presented in Appendix A-2.

2.4 CONFIRMATION SAMPLING

2.4.1 B37-RE-4 Remedial Excavation

Initial soil removal and confirmation sampling at remedial excavation B37-RE-4 began in March 1997 as previously reported by Montgomery Watson (1997(a,b)). Additional soil

removal at remedial excavation B37-RE-4 was required based on elevated PID readings, visual observations, or noticeable odors and was conducted from May 9, 1997 through June 25, 1997. A followup excavation was performed on January 8, 1998 to remove additional soil affected with metals.

Approximately 70 cubic yards of stockpiled soil associated with this additional excavation was removed with an excavator, transported and stockpiled west of the footprint of Building 61 (Stockpile AM).

Initial confirmation samples were collected from the walls and floor of this excavation. An overview of confirmation sample locations is presented in Figure 9. Several confirmation samples revealed elevated analyte concentrations *in situ* as follows:

<u>Sample ID</u>	<u>Analyte</u>	<u>Data Table</u>
B37-GS-178-1.5'*	arsenic	3
B37-GS-180-1.5'*	arsenic	3
B37-GS-165-1.5'*	SVOCs	5

* Area of sample location subsequently excavated.

Review of historical information did not reveal an association of arsenic within this area adjacent to Building 37. Locations of these confirmation samples are presented in Figure 10A. Analytical data are summarized in data tables indicated above.

Additional soil samples were collected (using the hand auger and drive sampler technique) at the locations of the confirmation sample locations presented above to evaluate the vertical extent of the affected soil. These samples were identified and selectively analyzed as follows:

<u>Sample ID</u>	<u>Analyte</u>	<u>Data Table</u>
B37-GS-178A-3'*	metals	3
B37-GS-178B-5'*	metals	3
B37-GS-180A-3'*	metals	3
B37-GS-180B-5'*	metals	3
B37-GS-165A-3'	SVOCs	12
B37-GS-165B-5'	SVOCs	12

* Area of sample location subsequently excavated.

The locations of these sample locations are presented in Figure 10A. Analytical data are summarized in the data tables indicated above.

Second Iteration Excavation and Confirmation Sampling Activity

Based on the additional characterization data from those samples described above, additional soil was overexcavated around the original confirmation sample locations to remove arsenic- and SVOC-affected soil as follows:

On June 2 and 3, 1997, approximately 50 cubic yards of arsenic-affected soil was excavated and stockpiled within the Building 37 footprint (Stockpile AN).

On June 3 and 11, 1997, approximately 30 cubic yards of SVOC-affected soil was excavated and stockpiled within the Building 37 footprint (Stockpile AO).

Additional confirmation samples were collected from these second iterative excavation areas and selectively analyzed as follows:

<u>Sample ID</u>	<u>Analyte</u>	<u>Data Table</u>
B37-GS-178C-3'	metals	12
B37-GS-178D-3'	metals	12
B37-GS-178E-3'	metals	12
B37-GS-178F-3'	metals	12
B37-GS-178G-3'	metals	12
B37-GS-180C-3'	metals	12
B37-GS-180D-3'	metals	12
B37-GS-180E-3'*	metals	7
B37-GS-180F-3'	metals	12
B37-GS-180G-3'	metals	12
B37-GS-165C-3'	SVOCs	12
B37-GS-165D-3'	SVOCs	12
B37-GS-165E-3'	SVOCs	12
B37-GS-165F-3'	SVOCs	12
B37-GS-165G-3'	SVOCs	12

* Area of sample location subsequently excavated.

Analytical data from these confirmation samples revealed that the SVOC-affected soil had been removed; however, elevated concentrations of lead and arsenic were detected in confirmation sample B37-GS-180E-3'. Review of historical information did not reveal an association of lead or arsenic within this area adjacent to Building 37. Sample locations are presented in Figure 10B. Analytical data are summarized in the data tables indicated above.

Third Iteration Excavation and Confirmation Sampling Activity

Based on the second iterative confirmation sample data described above, additional soil was overexcavated around the location of additional confirmation sample B37-GS-180E-3' to remove lead- and arsenic-affected soil as follows:

On June 25, 1997, approximately 6 cubic yards of lead- and arsenic-affected soil was excavated and stockpiled within the footprint of Building 37 (Stockpile AP).

Additional confirmation samples were collected from this third iterative excavation area and selectively analyzed as follows:

<u>Sample ID</u>	<u>Analyte</u>	<u>Data Table</u>
B37-GS-180E1-5'*	metals	9
B37-GS-180E2-5'	metals	12
B37-GS-180E3-5'*	metals	9
B37-GS-180E4-5'	metals	12
B37-GS-180E5-5'	metals	12

* Area of sample location subsequently excavated.

Analytical data from these samples revealed that the lead-affected soil had been removed; however, elevated concentrations of arsenic were detected in confirmation sample B37-GS-180E1-5', and elevated concentrations of arsenic and cadmium were detected in confirmation sample B37-GS-180E3-5'. Sample locations are presented in Figure 10C. Analytical data are summarized in the data tables indicated above.

Fourth Iteration Excavation and Confirmation Sampling Activity

Based on the third iterative confirmation sample data described above, additional soil was overexcavated around the location of confirmation samples B37-GS-180E1-5' and B37-GS-180E3-5' to remove arsenic- and cadmium-affected soil as follow:

On January 8, 1998, approximately 15 cubic yards of arsenic- and cadmium-affected soil was excavated and stockpiled adjacent to the Building 37 footprint (Stockpile AQ).

An additional confirmation sample was collected from this fourth iterative excavation area and selectively analyzed as follows:

<u>Sample ID</u>	<u>Analyte</u>
B37-GS-180E6-7'	metals

The sample location is presented in Figure 10D. Analytical data are summarized in Table 12.

Laboratory analytical reports for confirmation samples (not excavated) are presented in Appendix B-1.

2.4.2 B37-RE-5 Remedial Excavation

Soil removal at remedial excavation B37-RE-5 was conducted from April 24, 1997 through May 12, 1997. Approximately 1085 cubic yards of stockpiled soil was removed with an excavator, transported and stockpiled west of the footprint to Building 61 (Stockpiles A, B, C, and D).

Seventeen confirmation samples were collected at locations presented in Figure 11. The analytical data for these samples are summarized in Table 13.

A complete set of laboratory analytical reports is presented in Appendix B-2.

SECTION 3.0

DATA SUMMARIES AND CONCLUSIONS

This section presents soil screening criteria and the methodology used throughout the project to evaluate: (1) whether the soil stockpiles were suitable for use as backfill, or required treatment and/or off-site disposal, and (2) whether all affected soil has been removed based on confirmation sample data, or if additional excavation of affected soil is warranted.

3.1 SOIL SCREENING CRITERIA

The soil screening criteria have been developed to satisfy two primary objectives: (1) residual concentrations in backfill material and surface soil must be below levels projected to impact underlying drinking water sources, and (2) residual concentration in backfill materials and surface soil must be below levels projected to potentially impact human health under future construction and commercial/industrial activities at the Site.

In accordance with these objectives, soil screening criteria were developed for both drinking water and human health protection. The development of these soil screening criteria is discussed below followed by a summary of how these values were implemented.

3.1.1 Drinking Water

The generalized hydrostratigraphic succession at the Site is as follows (Kennedy/Jenks, 1996; Dames & Moore, 1993; Department of Water Resources, 1961):

SURFACE

Bellflower Aquitard
Gage Aquifer
El Segundo Aquitard
Lynwood Aquifer

Depth to groundwater at the Site is approximately 65 feet. Hydrostratigraphic information from voluminous data collected at the neighboring Del Amo and Montrose Chemical Superfund Sites can be correlated with subsurface information collected at the Site. Hydrostratigraphic correlations suggest that the shallowest groundwater at the Site occurs in the Bellflower Aquitard, which is not recognized as a drinking water source in the region (Dames & Moore, 1993).

Although the depth to the top of the Gage Aquifer should vary from approximately 120 to 150 feet (from west to east) across the Site, the Gage Aquifer is not utilized as a source of drinking water in the region (Dames & Moore, 1993). Consequently, the shallowest drinking water resource in the region would therefore be the Lynwood Aquifer, projected to occur at the depths of approximately 210 to 240 feet (from west to east) across the Site.

Based on the depth to the first drinking water source, the following permissible concentrations to 12 feet below ground surface have been approved by the RWQCB:

Analytes	Permissible Level
TRPH	
C4 - C12	2,000 mg/kg
C13 - C22	10,000 mg/kg
C22+	50,000 mg/kg
Metals	TTLC and STLC

Notes:

TTLC: Total Threshold Limit Concentration per CCR Title 22.

STLC: Soluble Threshold Limit Concentration per CCR Title 22.

A Waste Extraction Test (WET) is performed on samples with total metal concentration(s) greater than 10 times the STLC but less than the TTLC, per CCR Title 22.

3.1.2 Human Health

Site-specific health-based soil screening values were developed by IESI using standard United States Environmental Protection Agency (USEPA) and California Environmental Protection Agency (Cal/EPA) methodologies. These values were derived assuming future commercial industrial land use with an interim construction phase. Each value will be used as a predictor of the risk posed by individual VOC, SVOC, PCB, and metal contaminants in soil. The additive effects of multiple contaminants have been accounted for by setting conservative target risk levels at 1×10^{-6} for carcinogens and 0.2 for toxicants. The final cumulative risks for all residual contaminants at the Site will be addressed in the post-remedial risk assessment. Table 14 summarizes the Site-specific health-based soil screening values to be used at the Site. A more detailed discussion of the methodologies used to derive these values has been presented in the *Health-Based Remediation Goals for Surface Soils* document (IESI, 1997(b)).

3.1.3 Evaluation Process

STOCKPILE SOIL

All soil excavated at the Site was subjected to the soil screening evaluation process depicted in Figure 12. This evaluation process incorporates both drinking water and human health-based criteria. Soils that failed any portion of this test were subjected to treatment prior to

use as backfill, or were disposed of off-site. Once soils passed all aspects of the evaluation procedure, they were used for backfill.

Additionally, metal concentration(s) in stockpiled soils were used to further characterize the waste soil as follows:

- a) Stockpiled soils were classified as non-RCRA hazardous waste if representative soil samples contained any metal in total concentration equal to or greater than its respective TTLC per CCR Title 22.
- b) Representative soil samples were analyzed for soluble metal concentration using the Waste Extraction Test (WET) if the total concentration of any metal was equal to or greater than 10 times its respective STLC but less than its TTLC per CCR Title 22. Stockpiled soil was classified as non-RCRA hazardous waste if representative soil samples contained any metal in soluble concentration using the WET equal to or greater than its respective STLC per CCR Title 22.
- c) Additionally, representative soil samples which were analyzed using the WET were sometimes analyzed for soluble metal concentrations using the Toxic Characteristic Leaching Procedure (TCLP). Stockpiled soil was classified as a RCRA characteristic hazardous waste if the soluble concentration of any metal using the TCLP was equal to or greater than the toxicity characteristic (TC) per CCR Title 22.

CONFIRMATION SAMPLES

All confirmation soil data at the Site were subjected to the soil screening evaluation process depicted in Figure 13. This evaluation process incorporates both drinking water and human health-based criteria. Additional soil excavation and/or treatment was conducted at locations where confirmation sample data failed any portion of this test, and the maximum excavation depth of 12 feet had not been reached.

3.2 STOCKPILE EVALUATIONS

Chemicals of concern at the Site can be summarized as follows:

- Petroleum hydrocarbons
- VOCs
- SVOCs
- PCBs
- Metals

The sampling and analysis program for remedial excavations conducted within Building 37 and the Gravel Yard was conservatively focused on these chemicals of concern by implementing the following analytical schedule:

- All samples were analyzed for TRPH and metals.
- All samples which contained TRPH in concentration greater than 10,000 mg/kg were subsequently analyzed for carbon chain length.
- All grid samples were additionally analyzed for VOCs and SVOCs.
- All stockpile samples were additionally analyzed for VOCs and SVOCs.
- Stockpile samples were additionally analyzed for PCBs at a frequency of one sample per remedial excavation.
- For hot spot samples, TRPH was used as an initial screen to determine which samples would be analyzed for VOCs and SVOCs; only that sample with highest TRPH collected from a particular hot spot area was analyzed for VOCs and SVOCs.

Stockpile evaluations and dispositions are discussed below and summarized in Table 15.

3.2.1 B37-RE-4 Stockpiles AM through AQ

STOCKPILE AM

Analytical data for the one soil sample (stockpile sample B37-RE4-SP53) associated with B37-RE-4 Stockpile AM are presented in Table 2. These data are summarized and evaluated below.

Petroleum hydrocarbons: Stockpile sample B37-RE4-SP53 contained TRPH in concentration of 57 mg/kg. This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: All SVOC concentrations detected were below Site-specific health-based soil screening values.

PCBs: PCB analysis was not conducted on the sample collected from B37-RE-4 Stockpile AM; however, PCB analysis was performed on one sample collected from the initial B37-RE-4 stockpiled soil and 0.057 mg/kg was detected (Montgomery Watson, 1997(c)). The reported concentration was more than an order of magnitude below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: All concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

Conclusion: The data show that B37-RE-4 Stockpile AM soil meets the soil screening criteria established in Section 3.1 of this report and therefore was used as backfill material.

STOCKPILE AN

Analytical data associated with soil in B37-RE-4 Stockpile AN are presented in Table 3 and Table 4. These data are summarized and evaluated below.

Petroleum hydrocarbons: Stockpile sample B37-RE4-SP54 contained the highest TRPH concentration (280 mg/kg). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: All SVOC concentrations detected were below Site-specific health-based soil screening values.

PCBs: PCB analysis was not conducted. However, PCB analysis was performed on one sample collected from the initial B37-RE-4 stockpiled soil and 0.057 mg/kg was detected (Montgomery Watson, 1997(c)). The reported concentration was more than an order of magnitude below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: Arsenic exceeded the Site-specific health-based soil screening value in excavated confirmation samples B37-GS-178-1.5' and B37-GS-180-1.5'. The soluble concentration of arsenic in these samples met or exceeded the STLC (but did meet or exceed the TC for arsenic when analyzed using the TCLP). All other metal concentrations were below their respective TTLC, 10 times the STLC, and Site-specific health-based soil screening values.

Conclusion The soluble concentration of arsenic exceeded the STLC. Consequently, Stockpile AN was removed from the Site by a licensed hazardous waste hauler and properly disposed as a non-RCRA hazardous waste. Non-RCRA hazardous waste disposal documentation is presented in Appendix C.

STOCKPILE AO

Analytical data associated with soil in B37-RE-4 Stockpile AO are presented in Table 5 and Table 6. These data are summarized and evaluated below.

Petroleum hydrocarbons: Stockpile sample B37-RE4-SP55 contained the highest TRPH concentration of (380 mg/kg). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: The concentrations of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene exceeded their respective Site-specific health-based soil screening values in confirmation sample B37-GS-165-1.5'. The concentration of benzo(a)pyrene exceeded the Site-specific health-based soil screening value in stockpile sample B37-RE4-SP55.

PCBs: PCB analysis was not conducted. However, PCB analysis was performed on one sample collected from the initial B37-RE-4 stockpiled soil and 0.057 mg/kg was detected (Montgomery Watson, 1997(c)). The reported concentration was more than an order of magnitude below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: The total concentration of chromium in stockpile sample B37-RE4-SP55 exceeded 10 times the STLC. However, this sample did not meet or exceed the STLC when analyzed using the WET, or the TC when analyzed using the TCLP. All other metal concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

Conclusion: Stockpile AO contained three SVOCs in concentrations above their respective Site-specific health-based soil screening values and was removed from the Site and disposed of as a non-hazardous waste. Non-hazardous waste disposal documentation is presented in Appendix D.

STOCKPILE AP

Analytical data associated with soil in B37-RE-4 Stockpile AP are presented in Table 7 and Table 8. These data are summarized and evaluated below.

Petroleum hydrocarbons: TRPH were detected in sample B37-RE4-SP56 (100 mg/kg). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: SVOCs were not detected.

PCBs: PCB analysis was not conducted. However, PCB analysis was performed on one stockpile confirmation sample collected from the initial B37-RE-4 stockpiled soil and 0.057 mg/kg was detected (Montgomery Watson, 1997(c)). The reported concentration was more than an order of magnitude below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: The concentration of arsenic exceeded the Site-specific health-based soil screening value in stockpile sample B37-RE4-SP56. The soluble concentration of lead in excavated confirmation sample B37-GS-180E-3' exceeded the STLC (but did not meet or exceed the TC for lead when analyzed using the TCLP). All other metal concentrations were below

their respective TTLC, 10 times the STLC, and Site-specific health-based soil screening values.

Conclusion: The soluble concentration of lead exceeded the STLC. Consequently, Stockpile AP was removed from the Site by a licensed hazardous waste hauler and properly disposed of as a non-RCRA hazardous waste. Non-RCRA hazardous waste disposal documentation is presented in Appendix C.

STOCKPILE AQ

Samples representative of B37-RE-4 Stockpile AQ soil quality were analyzed for metals only. These analytical data are presented in Table 9 and summarized below.

Metals: The concentration of arsenic in excavated confirmation sample B37-GS-180E1-5' exceeded the Site-specific health-based soil screening value. The concentration of arsenic in excavated confirmation sample B37-GS-180E3-5' exceeded the Site-specific health-based soil screening value and 10 times the STLC; however, this sample did not meet or exceed the STLC when analyzed using the WET. The concentration of cadmium in excavated confirmation sample B37-GS-180E3-5' exceeded the Site-specific health-based soil screening value and 10 times the STLC, but did not meet or exceed the STLC when analyzed using the WET. All other metal concentrations were below their respective TTLC, 10 times the STLC, and Site-specific health-based soil screening values.

Conclusion: Stockpile AQ contained arsenic and cadmium above the Site-specific health-based screening value and will be removed from the Site and disposed of as non-hazardous waste. Off-site disposal documentation will be provided in an addendum to this report.

3.2.2 B37-RE-5 Stockpiles A through D

Analytical data for soil samples associated with B37-RE-5 Stockpiles A through D are presented in Table 10 and Table 11. These data are summarized and evaluated below.

Petroleum hydrocarbons: Excavated hot spot sample B37-GS-154-2.5' contained the highest TRPH concentration (270 mg/kg). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: Chrysene was detected in stockpile sample B37-RE5-SP2. Bis(2-ethylhexyl)phthalate was detected in excavated hot spot sample B37-GS-154-2.5'. Both compounds were detected in concentration below their respective Site-specific health-based soil screening value.

PCBs: PCBs were detected in stockpile sample B37-RE5-SP1A in concentration of 0.710 mg/kg. The reported concentration is below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: All concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

Conclusion: The data show B37-RE-5 Stockpiles A through D soil met the soil screening criteria established in Section 3.1 of this report and therefore were used as backfill material.

3.3 IN-SITU SOIL QUALITY

The post-remedial excavation confirmation sampling analytical program (see Table 1) was designed to ensure that residual soils (upper 12 feet) meet the soil screening criteria.

3.3.1 B37-RE-4 Remedial Excavation

Four iterations of soil removal were conducted at remedial excavation B37-RE-4. Confirmation sample data are presented in Table 12 and can be summarized as follows:

Petroleum Hydrocarbons: The maximum concentration of TRPH in a confirmation sample collected from the subject additional remedial excavation was 1,700 mg/kg (sample B37-GS-170-1.5'). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: Various SVOCs were detected; however, all SVOC concentrations were below Site-specific health-based soil screening values.

PCBs: Confirmation samples for the additional soil removal activities at B37-RE-4 were not analyzed for PCBs. However, two confirmation samples from previous soil removal activities at B37-RE-4 were analyzed for PCBs (Montgomery Watson, 1997(b)). PCBs were not detected in one sample (B37-GS-145A-6'); however, "trace" concentration was reported in the other sample (B37-GS-137A-6').

Metals: Metals were present in concentration greater than 10 times the STLC in the following samples: B37-GS-163-1.5' (cadmium), B37-GS-164-1.5' (cadmium, chromium), and B37-GS-166-1.5' (chromium and lead); however, soluble concentrations did not meet or exceed respective STLCs when analyzed using the WET. All other metal concentrations were below respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

Conclusion: The data show that the residual soils in the B37-RE-4 excavation met the soil screening criteria established in Section 3.1 of this report. Accordingly, this remedial excavation was backfilled.

3.3.2 B37-RE-5 Remedial Excavation

Confirmation sample data are presented in Table 13 and can be summarized as follows:

Petroleum hydrocarbons: The maximum concentration of TRPH in a confirmation sample collected from this additional remedial excavation was 130 mg/kg (sample B37-GS-198-2'). This concentration is below the 10,000 mg/kg threshold concentration and therefore TRPH was not speciated.

VOCs: VOCs were not detected.

SVOCs: Chrysene was detected in sample B37-GS-188-2' in concentration of 0.220 mg/kg. This concentration is below the for Site-specific health-based soil screening value of 114 mg/kg.

PCBs: PCBs were detected in sample B37-GS-198-2' in concentration of 0.032 mg/kg. This concentration is below the Site-specific health-based soil screening value for aroclor 1254 of 0.870 mg/kg.

Metals: All concentrations were below their respective TTLC, 10 times STLC, and Site-specific health-based soil screening values.

Conclusion: The data show that the residual soils in the additional B37-RE-5 excavation met the soil screening criteria established in Section 3.1 of this report. Accordingly, this remedial excavation was backfilled.

SECTION 4.0

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Figures

Figures



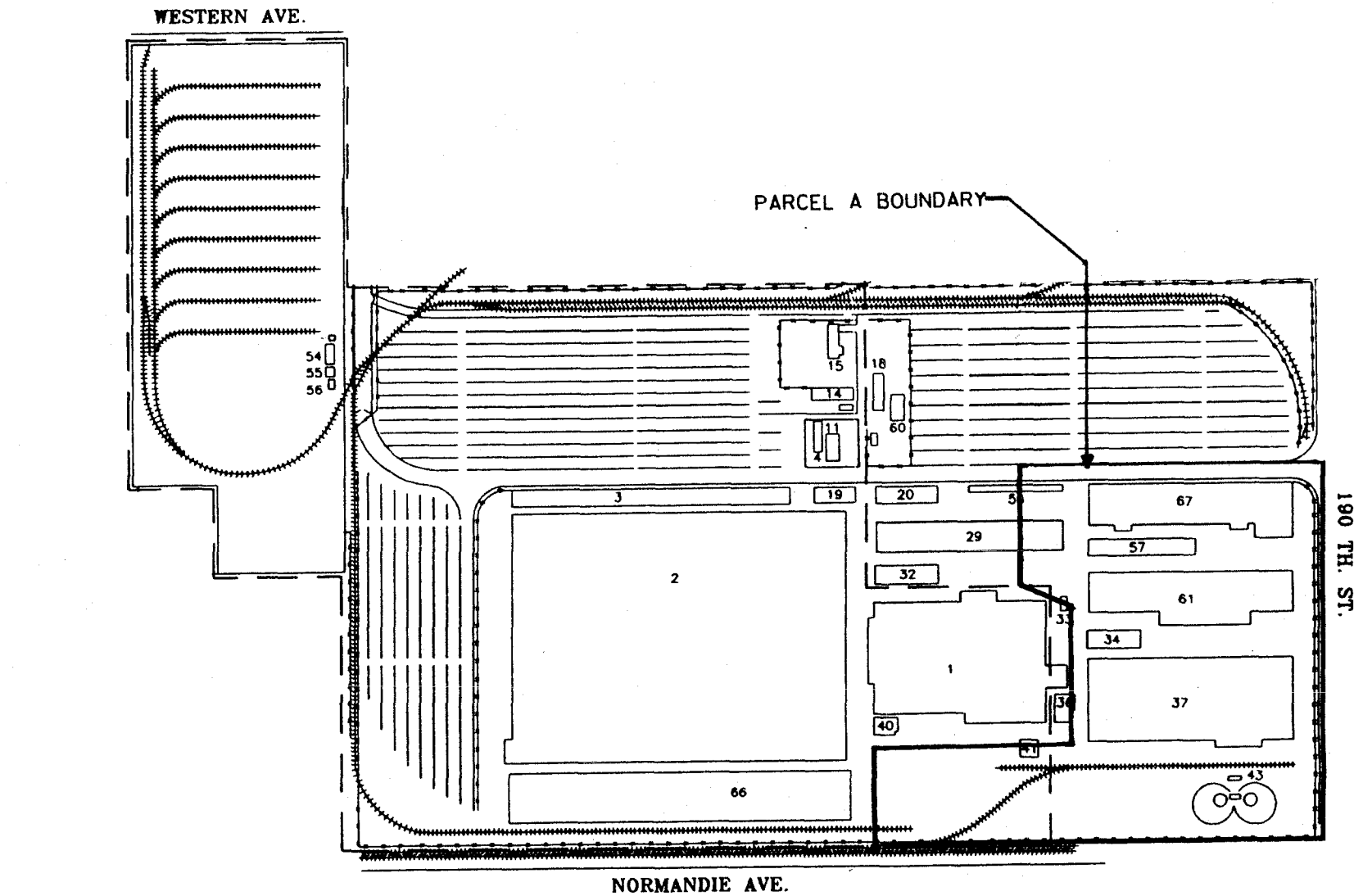
MONTGOMERY WATSON



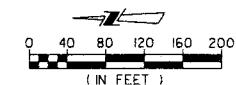
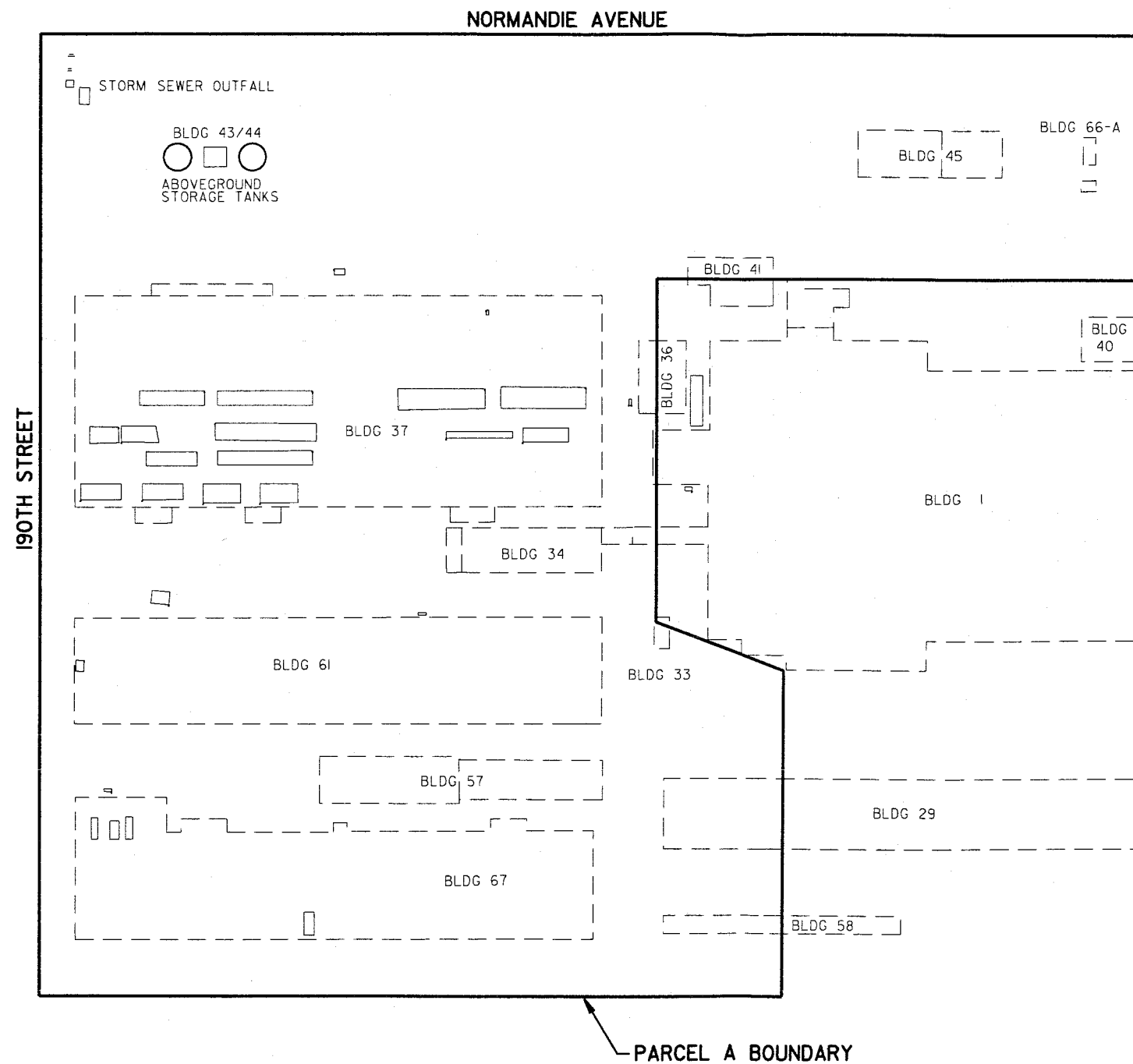
MONTGOMERY WATSON

C-6 FACILITY MAP

FIG. 1



Base map developed from Facility Layout and Subject Property Map by Kennedy/Jenks Consultants, May 1996.



BASE MAP DEVELOPED FROM TAIT & ASSOCIATES INC.
SURVEY DRAWING DATED 10/22/96.

JOB No. FILE No.

REV	DATE	BY	DESCRIPTION

SCALE:	
AS SHOWN	

DESIGNED	
DRAWN N. CHRAKIAN	
CHECKED S. REINERS	

SUBMITTED	
PROJECT ENGINEER	R. C. E. NO. DATE
RECOMMENDED	
MONTGOMERY WATSON	R. C. E. NO. DATE



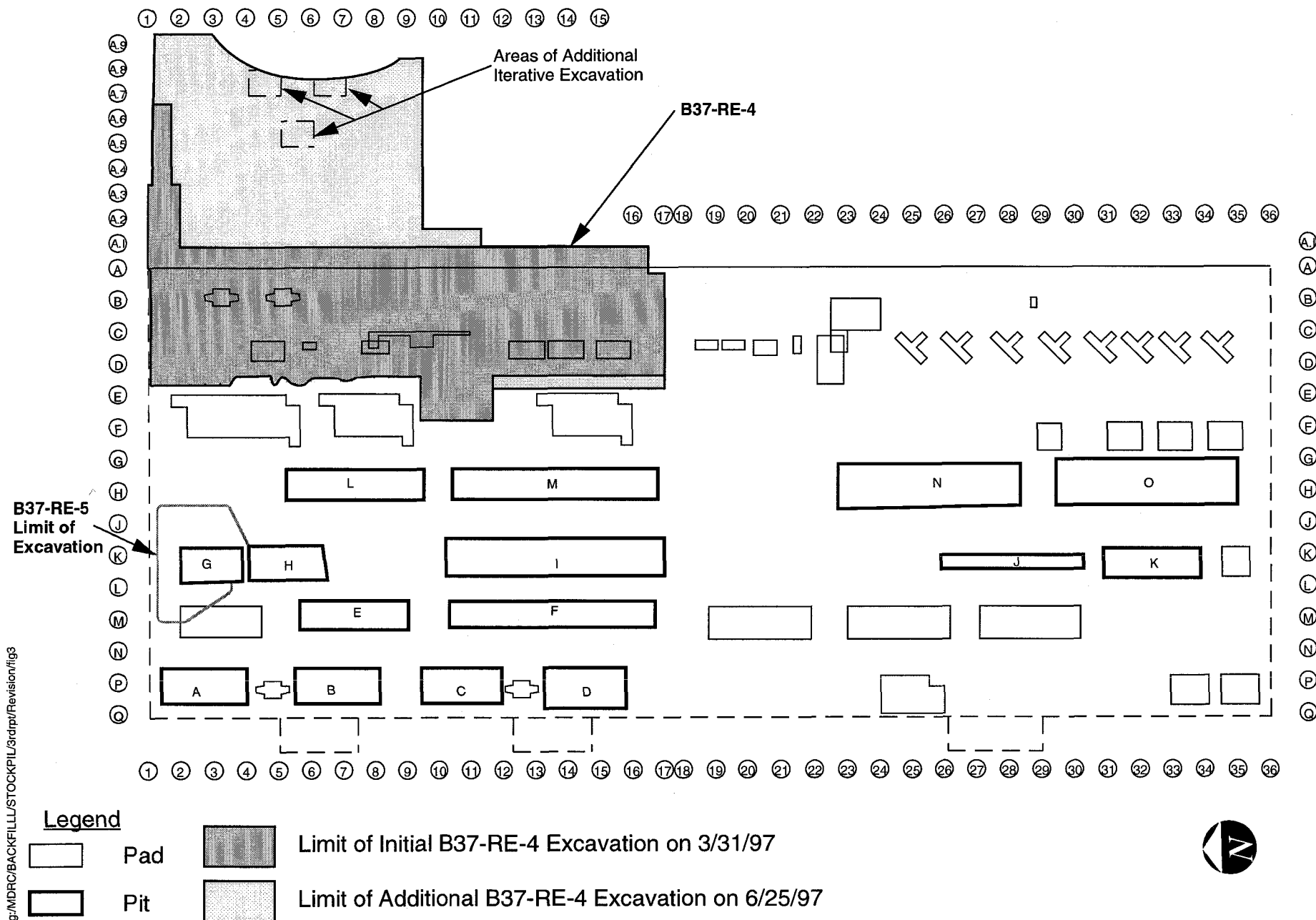
MONTGOMERY WATSON
Pasadena, California

APPROVED	
	DATE
APPROVED	
	DATE

BOEING REALTY CORPORATION
PARCEL A
SITE MAP

SHEET
FIG. 2
OF • SHEETS

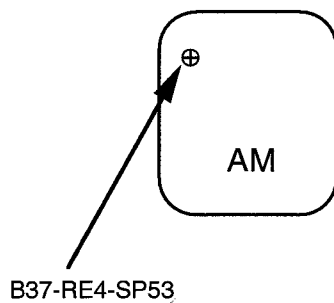
BOE-C6-0061908



BOEING REALTY CORPORATION
C-6 FACILITY - BUILDING 37

BUILDING 37 GRID OUTLINE AND LOCATIONS OF REMEDIAL EXCAVATIONS

FIGURE 3



BUILDING 61

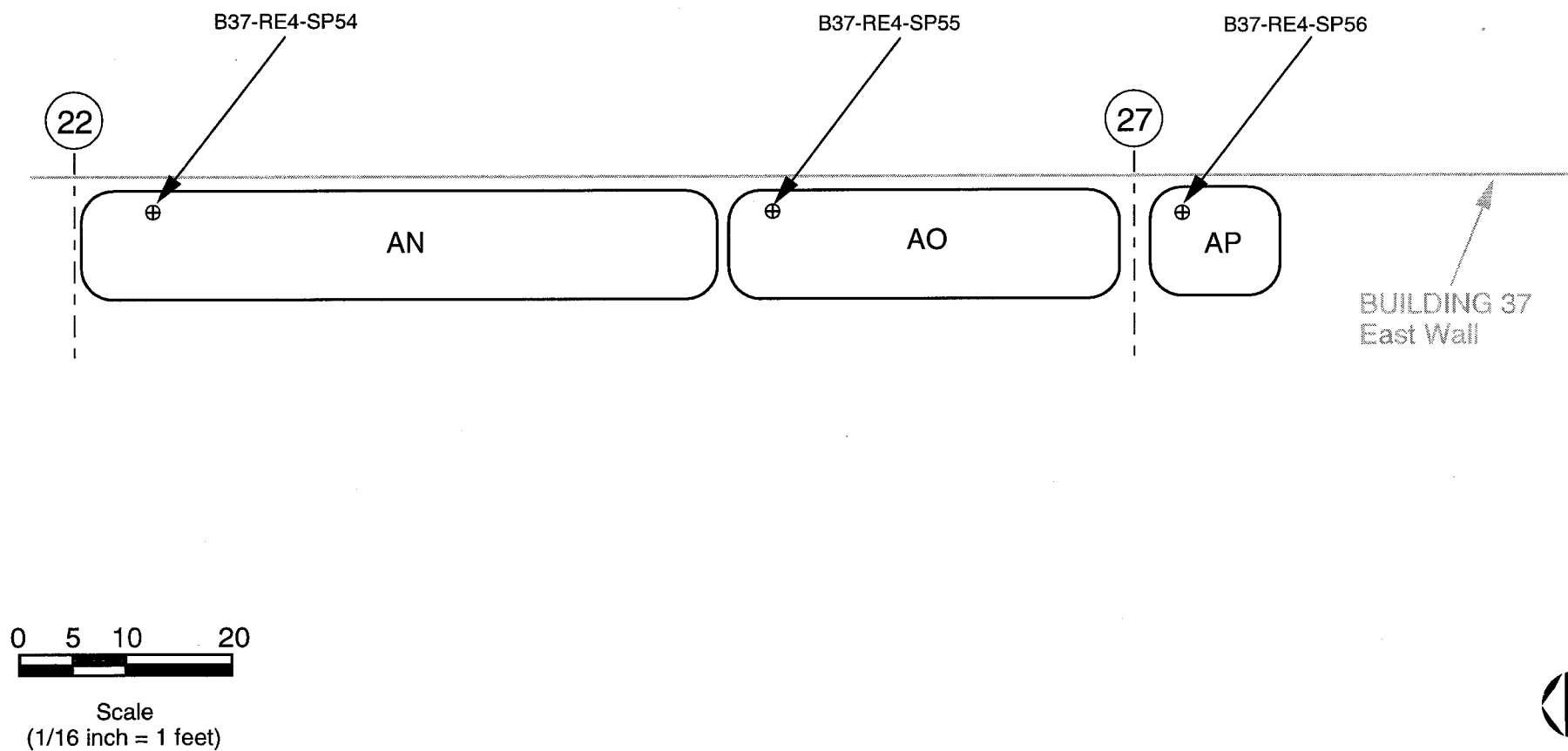


Not to Scale

BOEING REALTY CORPORATION
C-6 FACILITY
**Remedial Excavation B37-RE-4 Stockpile AM
Stockpile and Sample Location**

FIGURE 4

g:\MDRC\BACKFILL\STOCKPIL\3drpt\Revision\fig4-8.11



BOEING REALTY CORPORATION
C-6 FACILITY
**Remedial Excavation B37-RE-4 Stockpiles AN, AO, and AP
Stockpiles and Sample Locations**

FIGURE 5

BUILDING 37

AQ

43/44

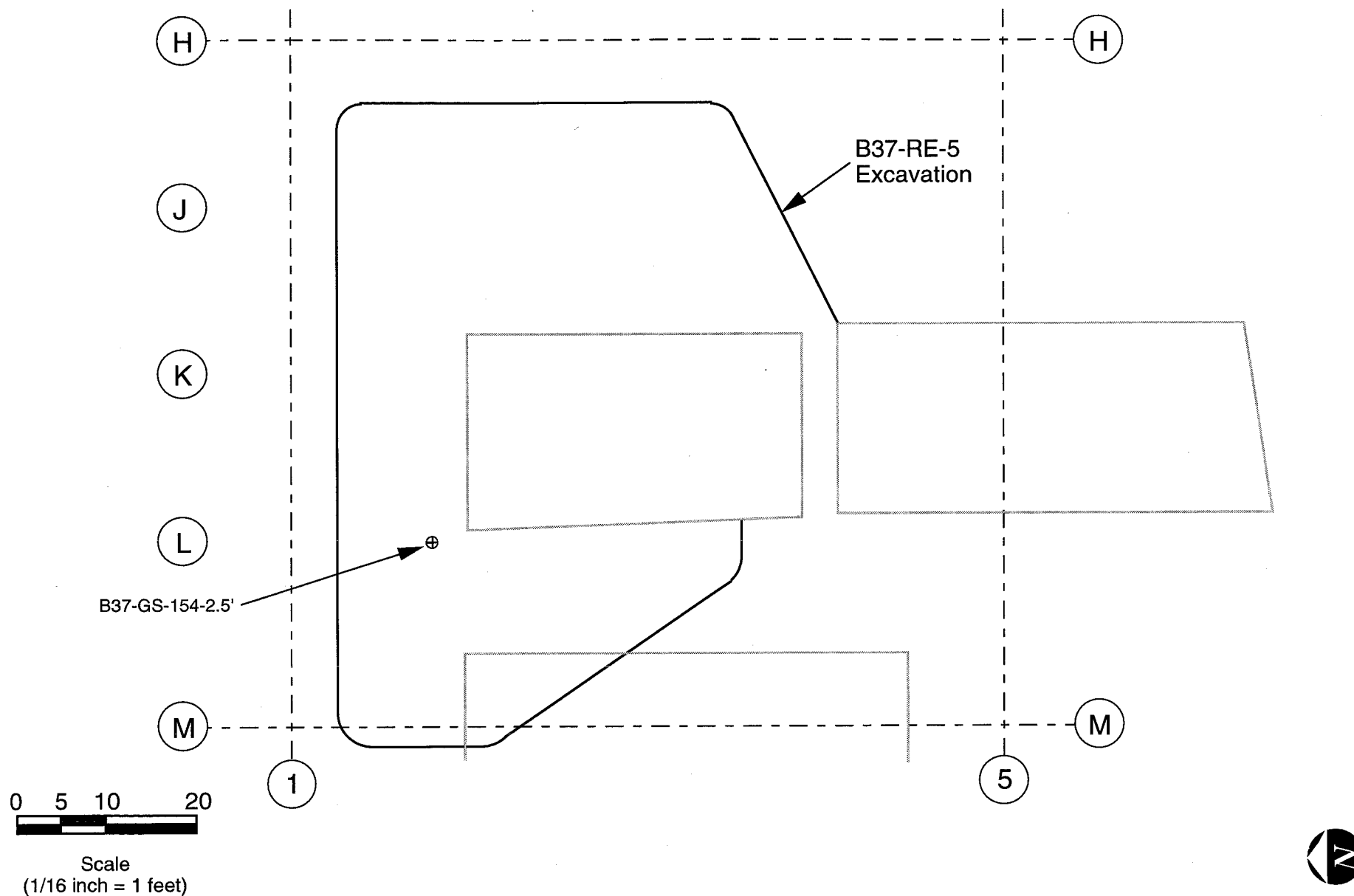


BOEING REALTY CORPORATION
C-6 FACILITY

FIGURE 6

Remedial Excavation B37-RE-4 Stockpile AQ Location

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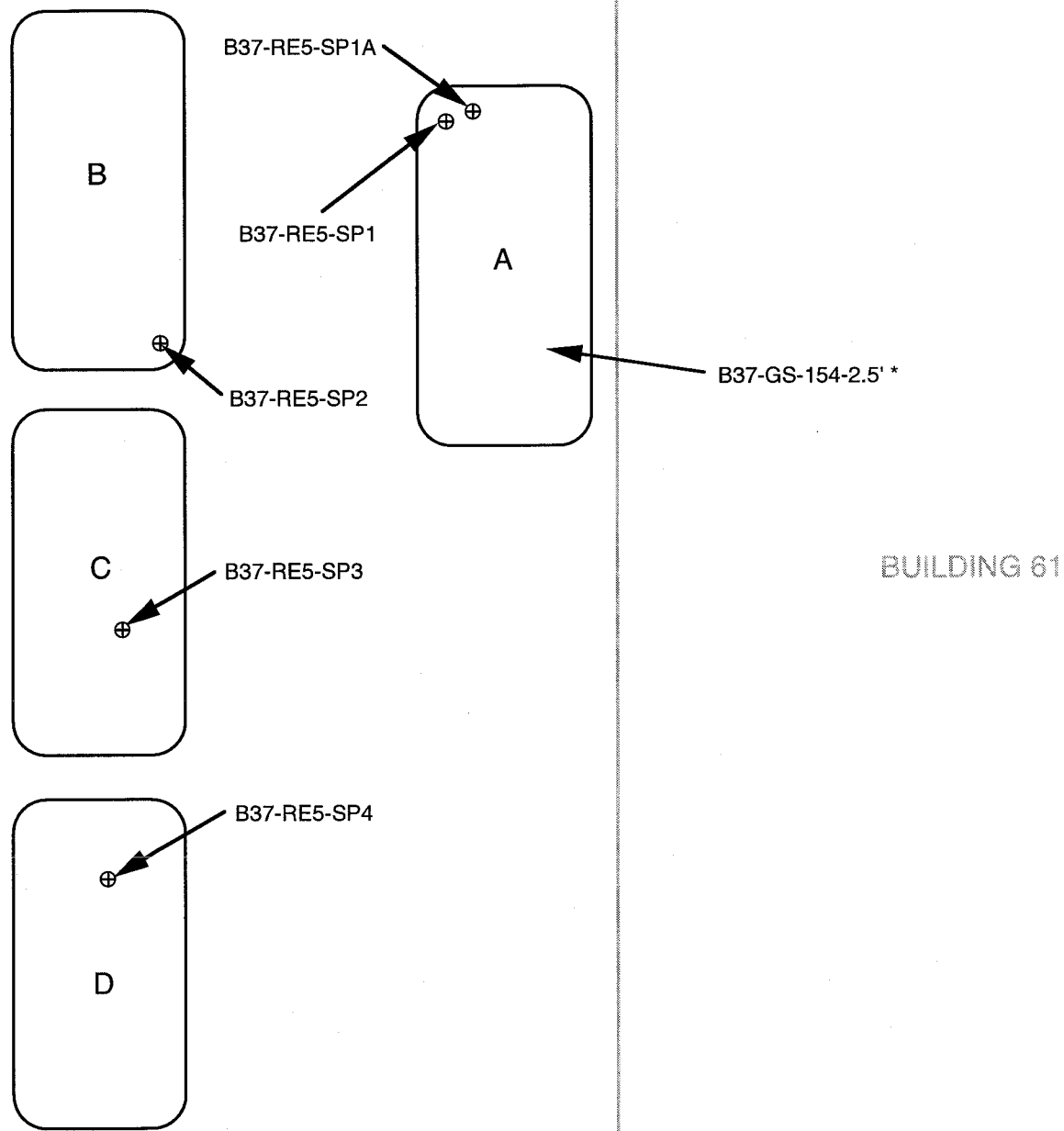


BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-5 Excavated Hot Spot Sample Location

FIGURE 7

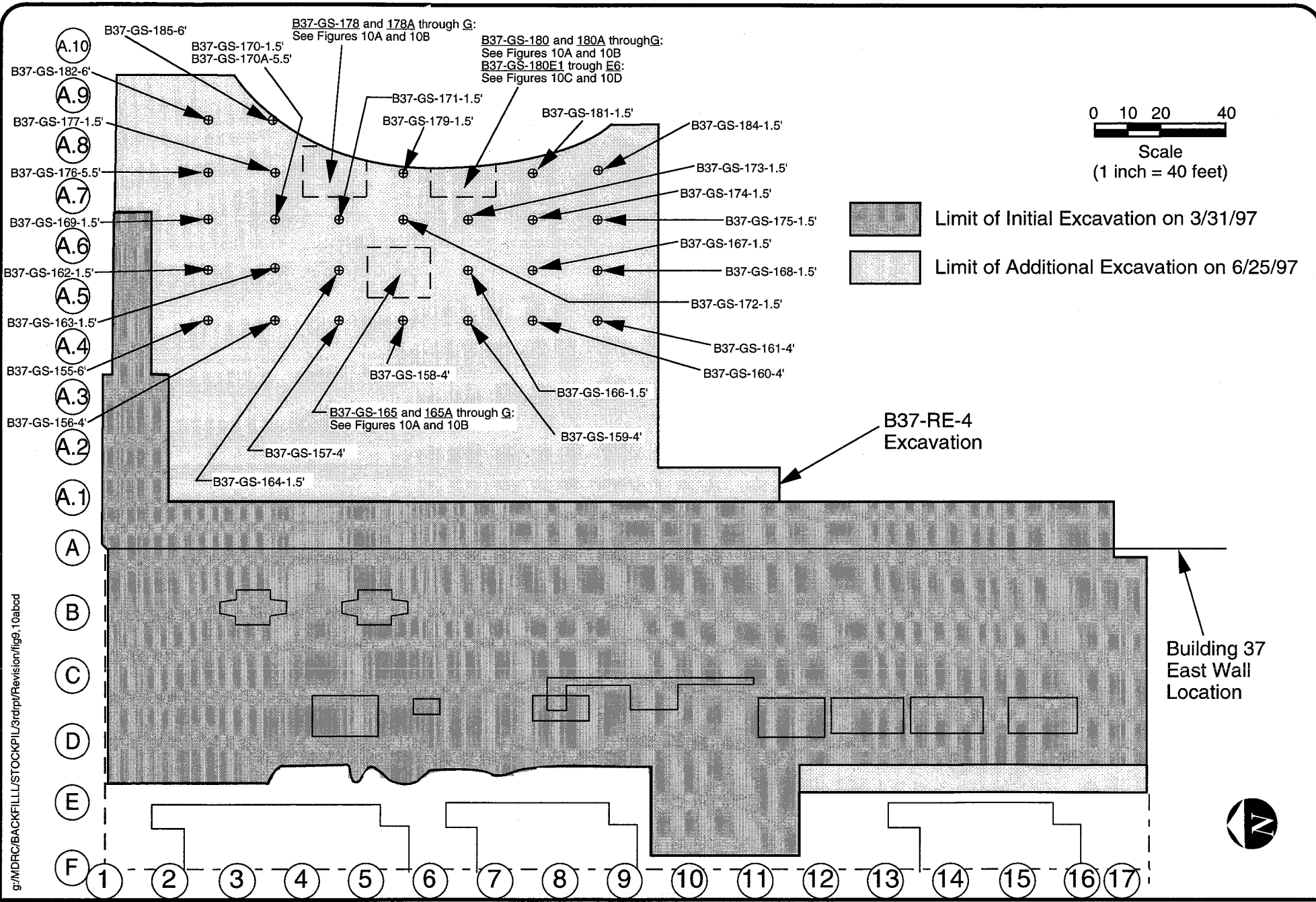
* See Figure 7 for this Hot Spot Sample Location



BOEING REALTY CORPORATION
C-6 FACILITY

**Remedial Excavation B37-RE-5 Stockpiles A through D
Stockpiles and Sample Locations**

FIGURE 8

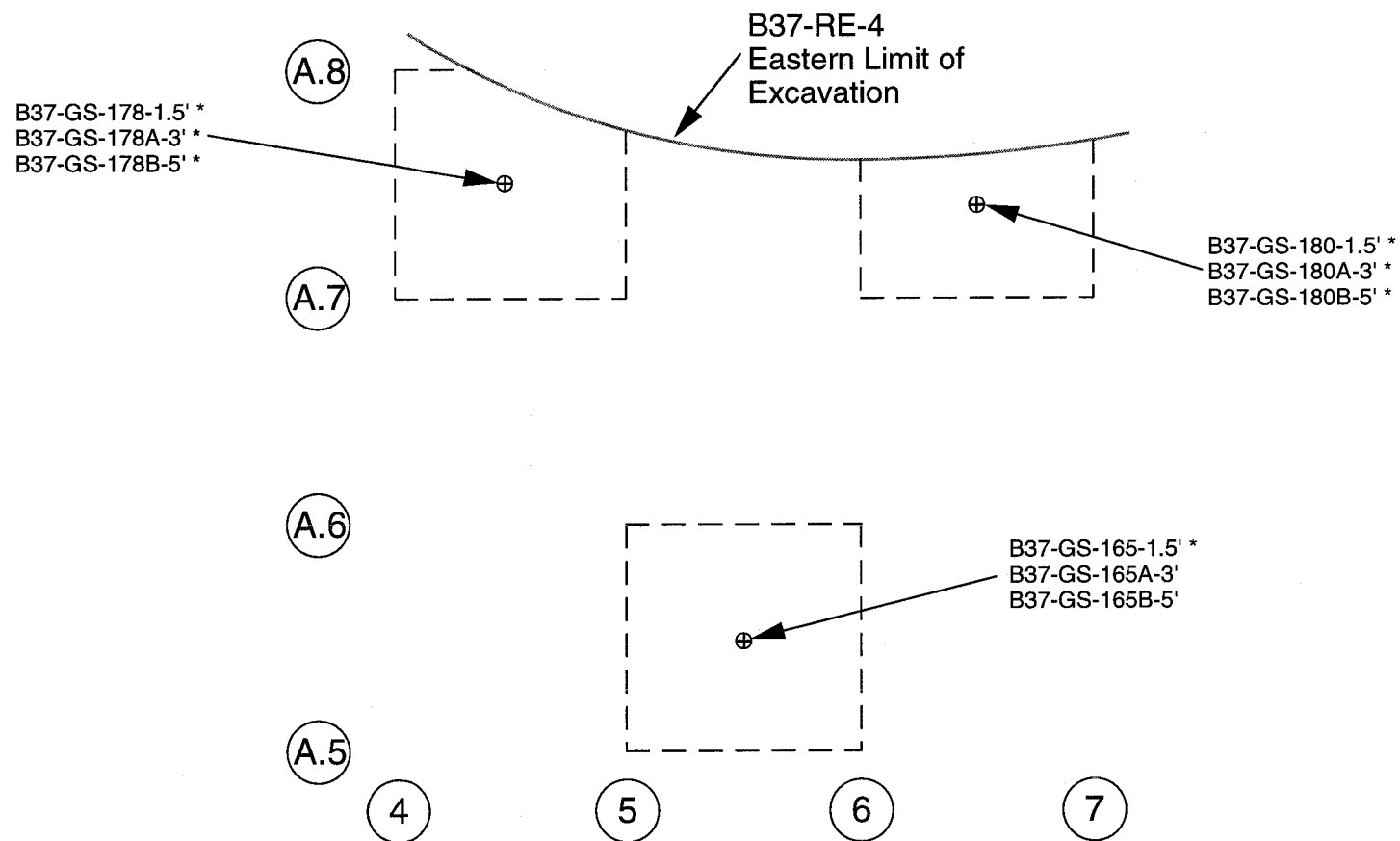


BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-4 Confirmation Sample Locations

FIGURE 9

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0 5 10 20
Scale
(1 inch = 16 feet)

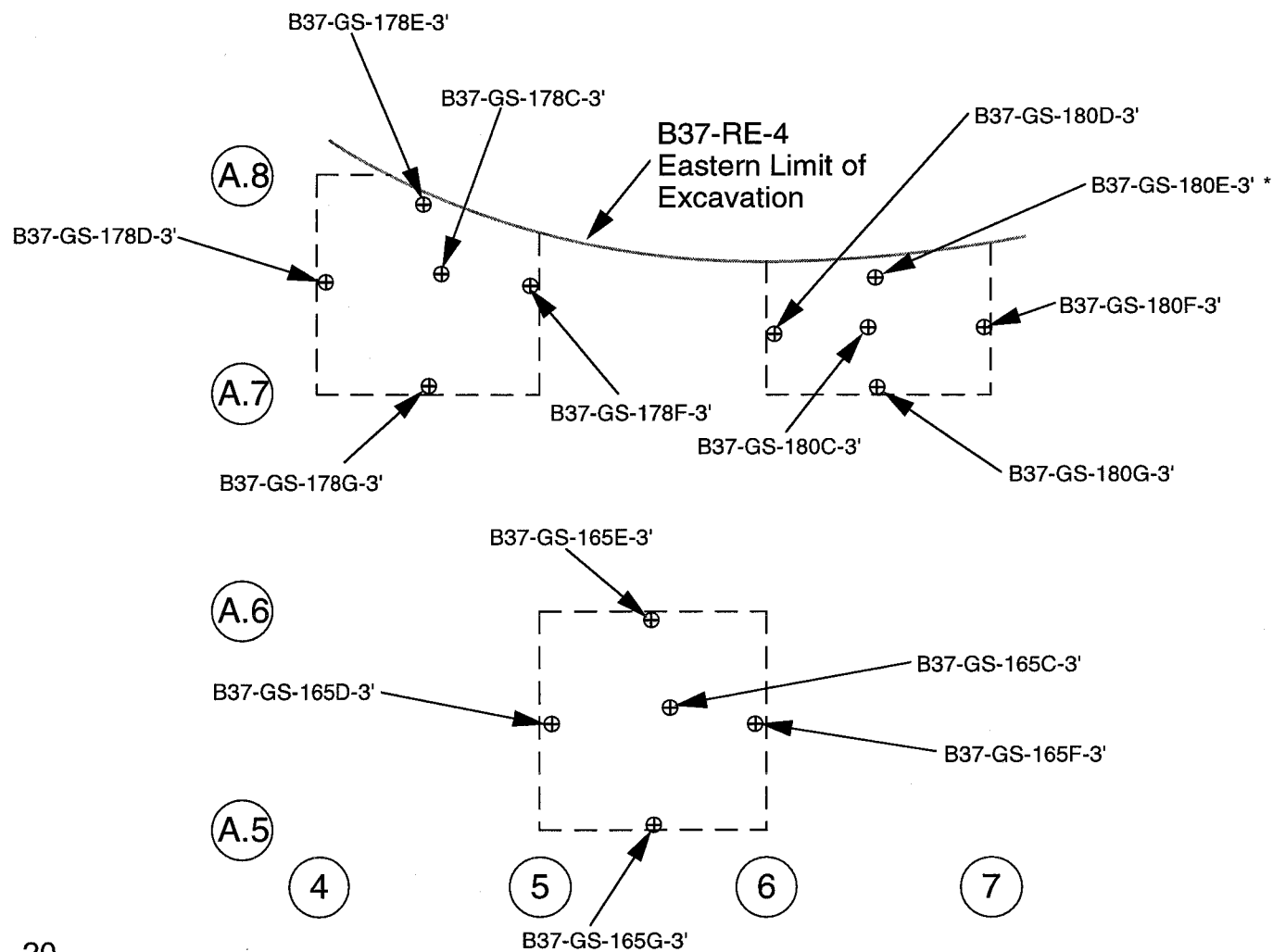


* Area of confirmation sample location subsequently excavated

BOEING REALTY CORPORATION
C-6 FACILITY

FIGURE 10A

Remedial Excavation B37-RE-4 Confirmation and Additional Characterization Sample Locations



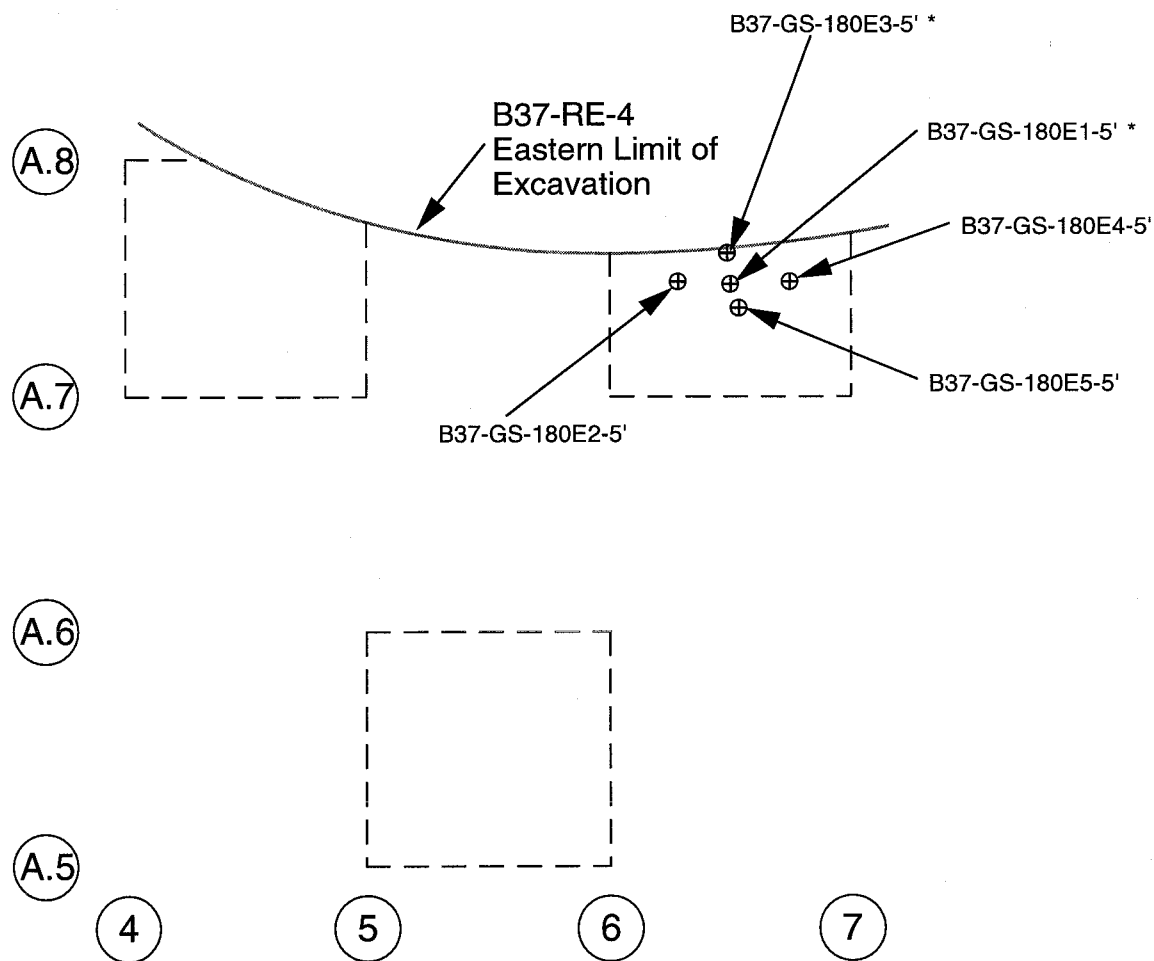
* Area of confirmation sample location subsequently excavated

BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-4 Additional Confirmation Sample Locations

FIGURE 10B

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0 5 10 20
Scale
(1 inch = 16 feet)

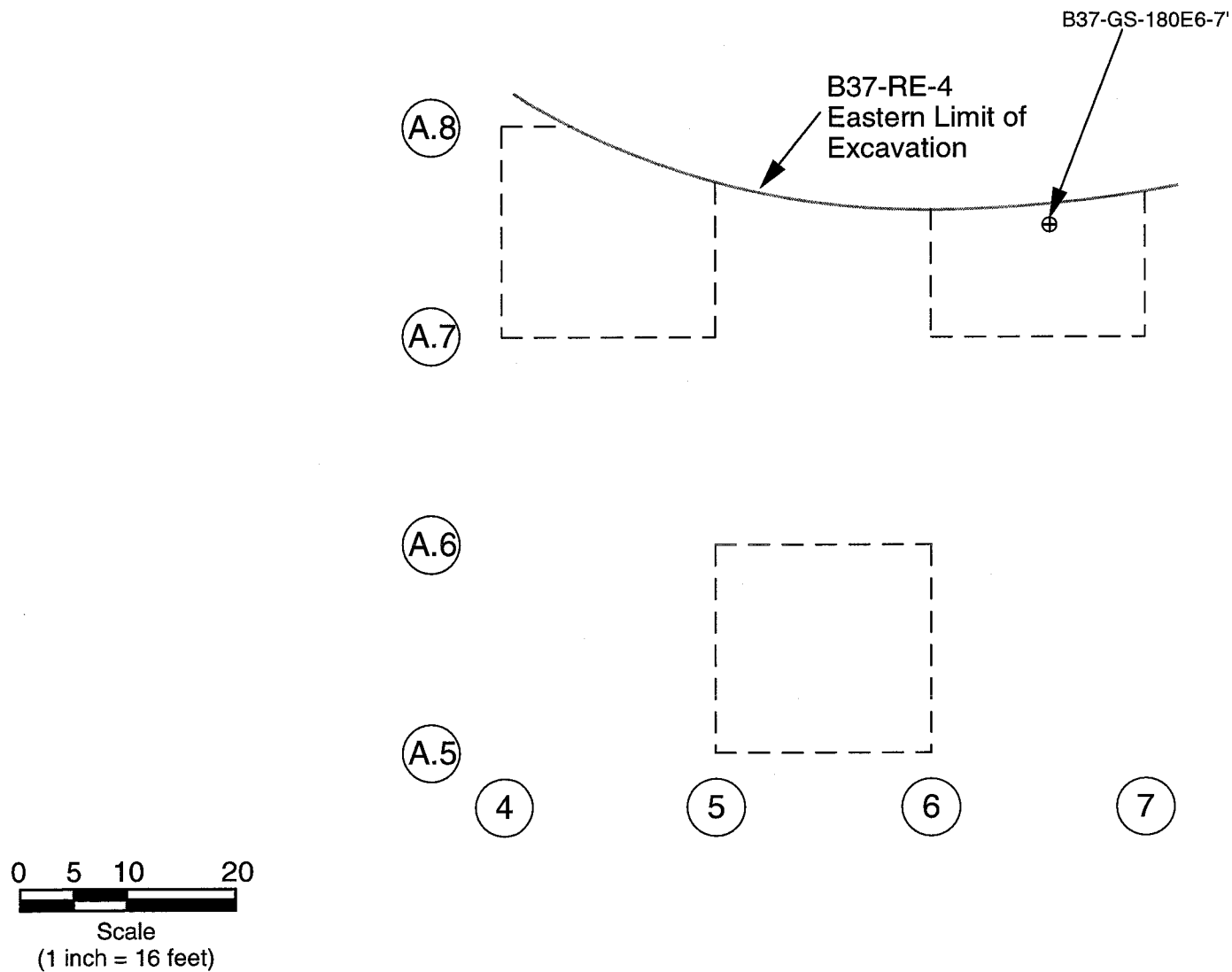
* Area of confirmation sample location subsequently excavated

BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-4 Additional Confirmation Sample Locations

FIGURE 10C

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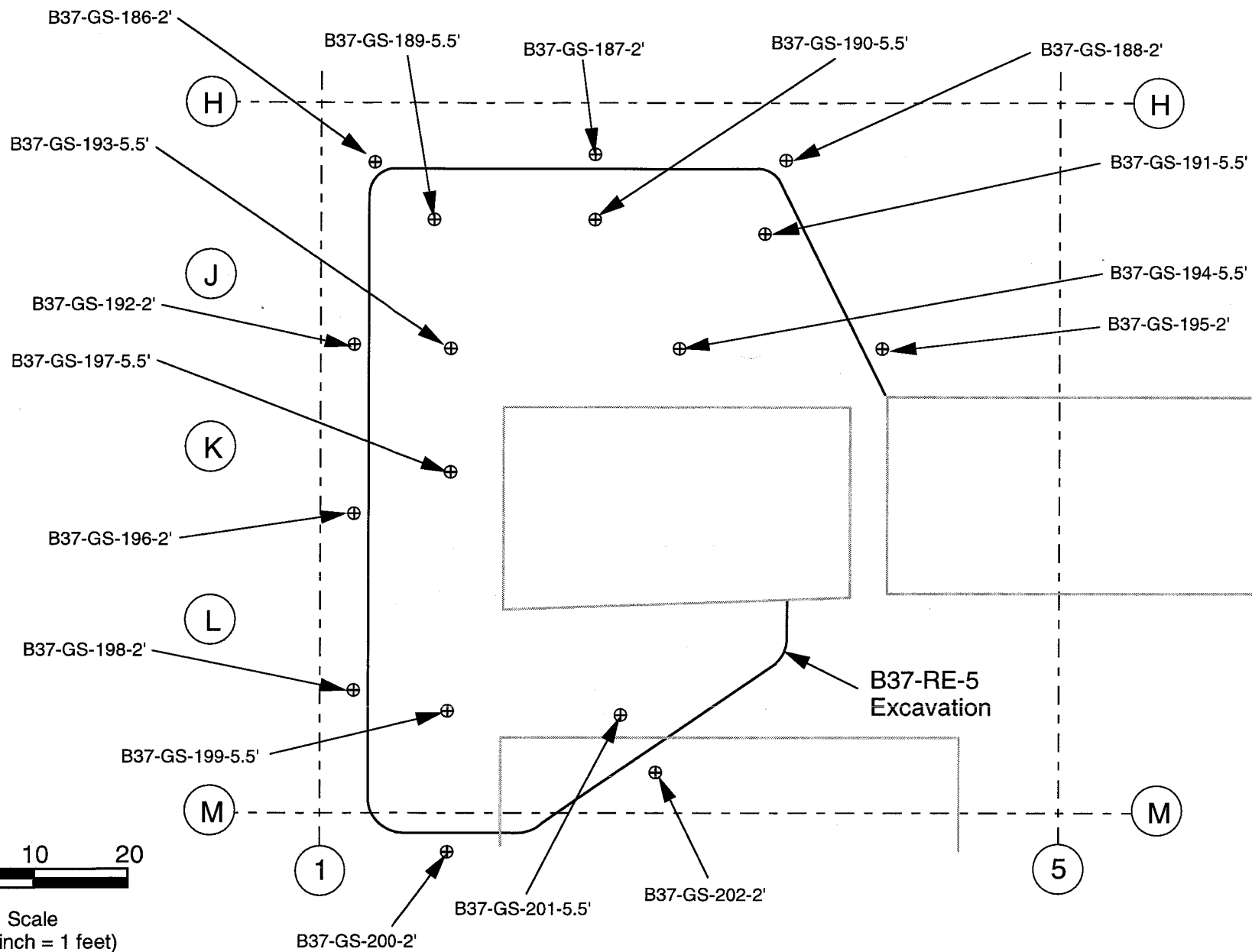


BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-4 Final Confirmation Sample Location

FIGURE 10D

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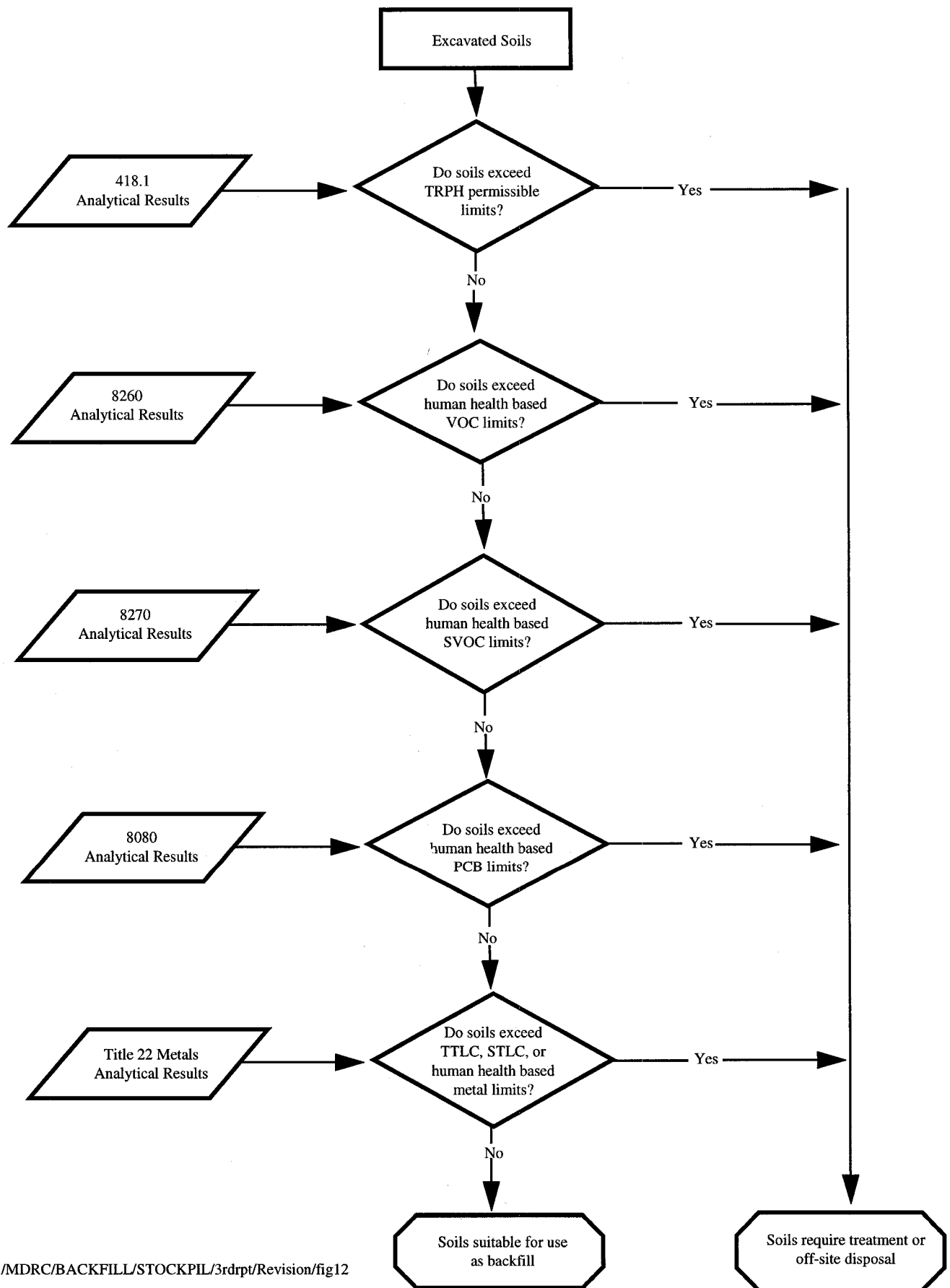


BOEING REALTY CORPORATION
C-6 FACILITY

Remedial Excavation B37-RE-5 Confirmation Sample Locations

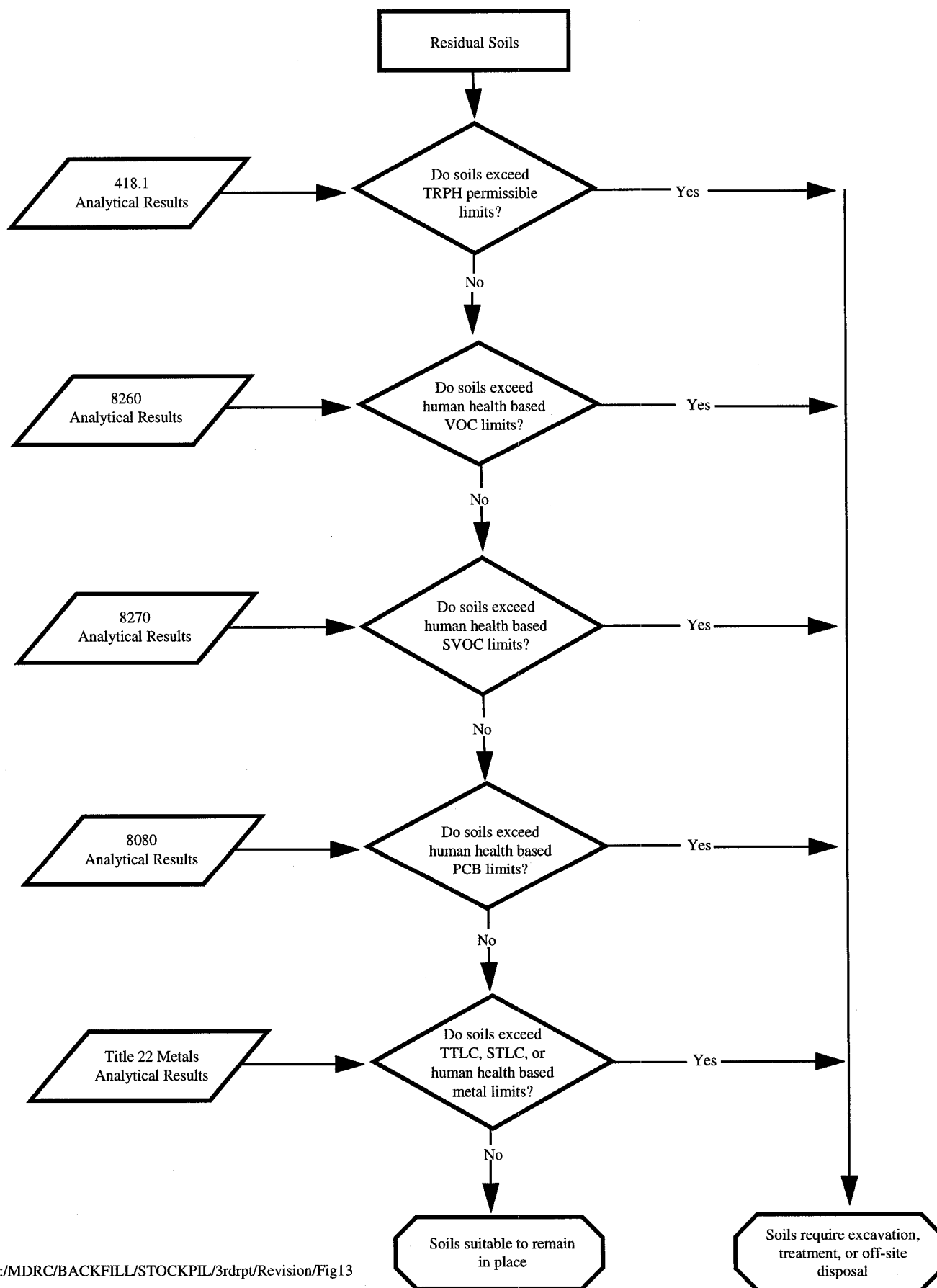
FIGURE 11

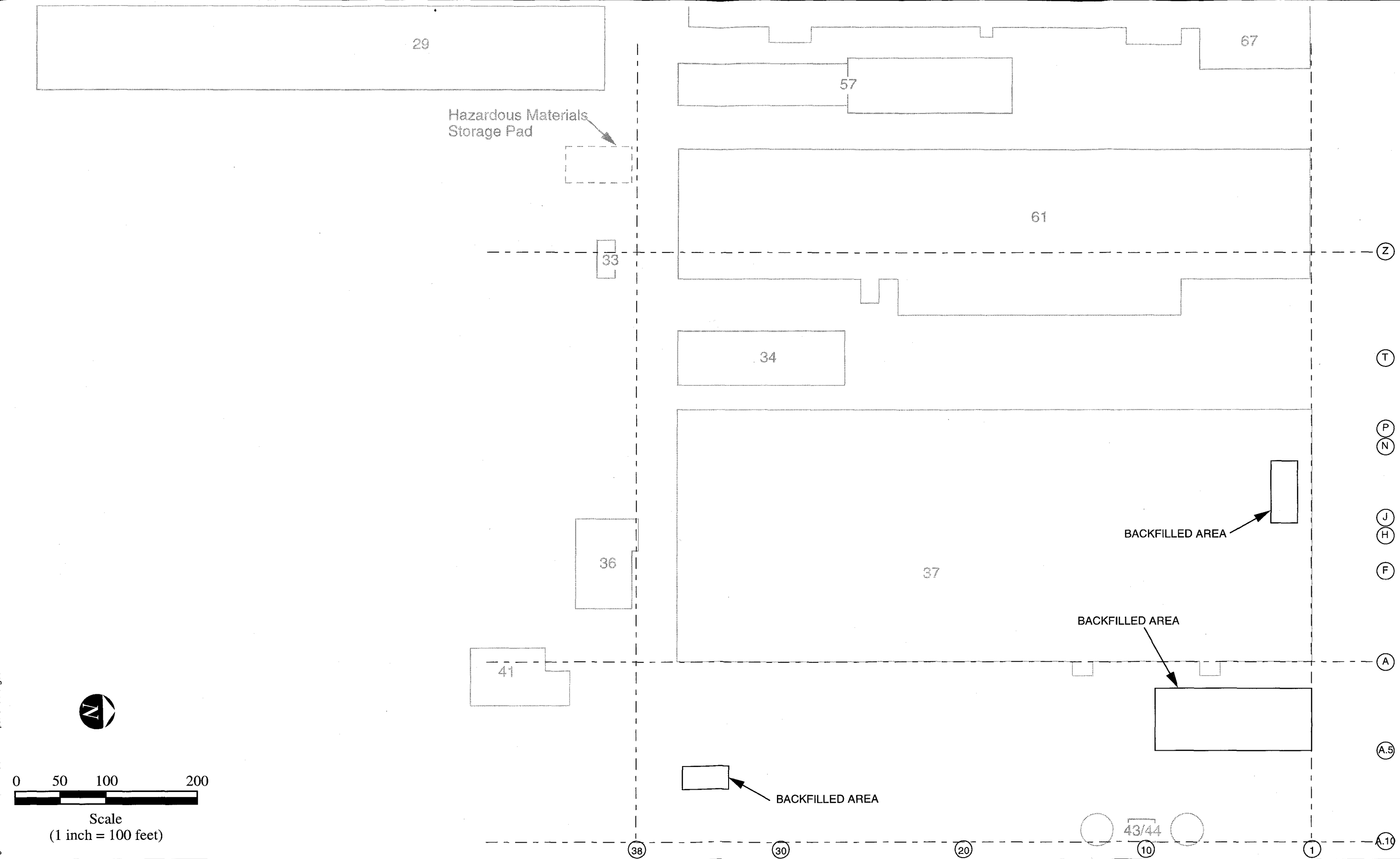
FIGURE 12
Soil Screening Evaluation Process - Excavated Soil



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FIGURE 13
Soil Screening Evaluation Process - Residual Soil





BOEING REALTY CORPORATION
C-6 FACILITY
Soil Backfill Locations

FIGURE 14

Tables



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TABLE 1**Summary of Soil Sample Analytical Methods**

Sample Type	EPA Method	Analyte
Grid Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs
	8270	SVOCs
Hot Spot Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs (b)
	8270	SVOCs (b)
Stockpile Sample	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs
	8270	SVOCs
Confirmation Sample	8080	PCBs (c)
	418.1	TRPH (a)
	6000/7000	Metals
	8260	VOCs (d)
	8270	SVOCs (d)
	8080	PCBs (e)

Notes:

TRPH Total Recoverable Petroleum Hydrocarbons

VOCs Volatile Organic Compounds

SVOCs Semi-volatile Organic Compounds.

PCBs Polychlorinated Biphenyls

(a) Samples exhibiting TRPH concentration greater than 10,000 mg/kg were submitted for carbon chain analysis.

(b) Only the sample with highest TRPH concentration from a hot spot area was analyzed for VOCs and SVOCs.

(c) One sample per remedial excavation.

(d) The number of confirmation samples analyzed for VOCs and SVOCs is approximately equal to the number of stockpile samples analyzed for VOCs and SVOCs. Confirmation samples were selected for analysis of VOCs and SVOCs based on highest TRPH concentration, and location of evenly spaced confirmation sample locations.

(e) Generally, one sample per each remedial excavation, or following the removal of each 2500 cubic yards of soil, whichever is less.

TABLE 2
Analytical Data Summary
Remedial Excavation B37-RE-4 Stockpile AM Sample*

		Sample Number and Collection Date		
		B37-RE4-SP53		
Analyte		EPA Method	5/9/97	
TRPH (mg/kg)	418.1	57.00		
Title 22 Metals (mg/kg)			Regulatory Levels	
			TTLc (mg/kg)	STLC (mg/L)
Antimony	6010	<5.00	500	15
Arsenic	6010	<1.00	500	5
Barium	6010	96.00	10,000	100
Beryllium	6010	<0.10	75	0.75
Cadmium	6010	<0.10	100	1
Chromium (VI)	7196	<0.50	500	5
Chromium (total)	6010	29.00	2,500	5 **
Cobalt	6010	7.40	8,000	80
Copper	6010	15.00	2,500	25
Lead (total)	6010	<1.00	1,000	5
Mercury	7471	<0.01	20	0.2
Molybdenum	6010	<0.50	3,500	350
Nickel	6010	10.00	2,000	20
Selenium	6010	<1.00	100	1
Silver	6010	<0.10	500	5
Thallium	6010	<5.00	700	7
Vanadium	6010	28.00	2,400	24
Zinc	6010	51.00	5,000	250
VOCs (µg/kg)	8260	ND		
SVOCs (1) (µg/kg)				
Chrysene	8270	110.00		
Fluoranthene	8270	130.00		
Pyrene	8270	100.00		
Carbon Chain Range (mg/kg)	sim. dist.	--		
PCBs (µg/kg)	8080	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected

PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
TTLc = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
(1) SVOCs not listed were not detected

* Refer to Figure 4 for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 3
Analytical Data Summary
Remedial Excavation B37-RE-4 Excavated Confirmation Samples (Stockpile AN)

		Sample Number, Collection Date, Grid Location and Depth								
		B37-GS-178-1.5' 5/1/97	B37-GS-178A-3' 5/22/97	B37-GS-178B-5' 5/22/97	B37-GS-180-1.5' 5/1/97	B37-GS-180A-3' 5/22/97	B37-GS-180B-5' 5/22/97			
Analyte	EPA Method	A.7/A.8-4.5 @ 1.5' bgs*	A.7/A.8-4.5 @ 3' bgs*	A.7/A.8-4.5 @ 5' bgs*	A.7/A.8-6.5 @ 1.5' bgs*	A.7/A.8-6.5 @ 3' bgs*	A.7/A.8-6.5 @ 5' bgs*			
TRPH (mg/kg)	418.1	160.00	--	--	44.00	--	--	Regulatory Levels		
								TTLc	STLC	
								(mg/kg)	(mg/L)	
Title 22 Metals (mg/kg)								500	15	
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	500	5	
Arsenic	6010	110.00 (2)(3) #	<1.00	<1.00	50.00 (4)(5) #	<1.00	<1.00	500	5	
Barium	6010	86.00	110.00	64.00	95.00	110.00	73.00	10,000	100	
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75	
Cadmium	6010	4.60	<0.10	<0.10	1.70	<0.10	<0.10	100	1	
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	500	5	
Chromium (total)	6010	18.00	25.00	29.00	22.00	23.00	27.00	2,500	5 **	
Cobalt	6010	8.30	7.20	7.70	7.20	7.70	6.30	8,000	80	
Copper	6010	33.00	16.00	10.00	29.00	12.00	9.20	2,500	25	
Lead (total)	6010	22.00	<1.00	<1.00	32.00	<1.00	<1.00	1,000	5	
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2	
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350	
Nickel	6010	8.90	8.60	7.00	10.00	11.00	7.80	2,000	20	
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	100	1	
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	500	5	
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	700	7	
Vanadium	6010	23.00	27.00	31.00	22.00	24.00	31.00	2,400	24	
Zinc	6010	51.00	54.00	46.00	57.00	38.00	48.00	5,000	250	
VOCs (µg/kg)	8260	ND	--	--	--	--	--			
SVOCs (1) (µg/kg)										
Chrysene	8270	130.00	--	--	--	--	--			
Phenanthrene	8270	100.00	--	--	--	--	--			
Pyrene	8270	130.00	--	--	--	--	--			
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--	--			
PCBs (µg/kg)	8080	--	--	--	--	--	--			

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
bgs = below ground surface
ND = not detected
sim.dist. = simulated distillation

VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls
TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
= Exceeds Screening Value

- (1) SVOCs not listed were not detected
- (2) Waste Extraction Test performed on this sample. Result was 11 mg/L.
- (3) TCLP analysis performed on this sample. Result was <1.0 mg/L.
- (4) Waste Extraction Test performed on this sample. Result was 5.0 mg/L.
- (5) TCLP analysis performed on this sample. Result was 3.2 mg/L.

* Refer to Figure 10A for sample locations

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 4
Analytical Data Summary
Remedial Excavation B37-RE-4 Stockpile AN Sample*

		Sample Number and Collection Date		
		B37-RE4-SP54		
Analyte	EPA Method	7/8/97		
TRPH (mg/kg)	418.1	280.00		Regulatory Levels
				TTLc (mg/kg)
				STLC (mg/L)
Title 22 Metals (mg/kg)				
Antimony	6010	<5.00		500 15
Arsenic	6010	<1.00		500 5
Barium	6010	110.00		10,000 100
Beryllium	6010	<0.10		75 0.75
Cadmium	6010	<0.10		100 1
Chromium (VI)	7196	<0.50		500 5
Chromium (total)	6010	29.00		2,500 5 **
Cobalt	6010	7.90		8,000 80
Copper	6010	18.00		2,500 25
Lead (total)	6010	7.00		1,000 5
Mercury	7471	<0.01		20 0.2
Molybdenum	6010	<0.50		3,500 350
Nickel	6010	13.00		2,000 20
Selenium	6010	<1.00		100 1
Silver	6010	<0.10		500 5
Thallium	6010	<5.00		700 7
Vanadium	6010	32.00		2,400 24
Zinc	6010	52.00		5,000 250
VOCs (µg/kg)	8260	ND		
SVOCs (µg/kg)	8270	ND		
Carbon Chain Range (mg/kg)	sim. dist.	--		
PCBs (µg/kg)	8080	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected

PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
TTLc = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration

* Refer to Figure 5 for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 5
Analytical Data Summary
Remedial Excavation B37-RE-4 Excavated Confirmation Sample (Stockpile AO)

Analyte		EPA Method	Sample Number, Collection Date, Grid Location and Depth		
			B37-GS-165-1.5'		
				4/29/97	
				A.5/A.6-5.5 @ 1.5' bgs*	
TRPH (mg/kg)		418.1	98.00		Regulatory Levels
					TTL
					STLC
Title 22 Metals (mg/kg)					(mg/kg)
					(mg/L)
Antimony	6010	<5.00		500	15
Arsenic	6010	<1.00		500	5
Barium	6010	94.00		10,000	100
Beryllium	6010	<0.10		75	0.75
Cadmium	6010	4.50		100	1
Chromium (VI)	7196	<0.50		500	5
Chromium (total)	6010	36.00		2,500	5 **
Cobalt	6010	6.50		8,000	80
Copper	6010	24.00		2,500	25
Lead (total)	6010	22.00		1,000	5
Mercury	7471	<0.01		20	0.2
Molybdenum	6010	<0.50		3,500	350
Nickel	6010	12.00		2,000	20
Selenium	6010	<1.00		100	1
Silver	6010	<0.10		500	5
Thallium	6010	<5.00		700	7
Vanadium	6010	24.00		2,400	24
Zinc	6010	77.00		5,000	250
VOCs (µg/kg)		8260	ND		
SVOCs (1) (µg/kg)					
Acenaphthene	8270	520.00			
Anthracene	8270	1,200.00			
Benzo (a) Anthracene	8270	14,000.00 #			
Benzo (b) Fluoranthene	8270	16,000.00 #			
Benzo (k) Fluoranthene	8270	6,900.00			
Benzo (a) Pyrene	8270	15,000.00 #			
Benzo (g,h,i) Perylene	8270	9,200.00			
Chrysene	8270	14,000.00			
Dibenz (a,h) Anthracene	8270	3,100.00			
Fluoranthene	8270	18,000.00			
Indeno (1,2,3-cd)Pyrene	8270	11,000.00			
2-Methylnaphthalene	8270	520.00			
Naphthalene	8270	600.00			
Phenanthrene	8270	5,900.00			
Pyrene	8270	9,800.00			
Carbon Chain Range (mg/kg)		sim. dist.	--		
PCBs (µg/kg)		8080	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected
= Exceeds Screening Value

VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
PCBs = Polychlorinated Biphenyls
(1) SVOCs not listed were not detected
TTL = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
bgs = below ground surface

* Refer to Figure 10A for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 6
Analytical Data Summary
Remedial Excavation B37-RE-4 Stockpile AO Sample*

		Sample Number and Collection Date	
		B37-RE4-SP55	
		7/8/97	
Analyte	EPA Method		
TRPH (mg/kg)	418.1	380.00	
Title 22 Metals (mg/kg)		Regulatory Levels	
		TTLc (mg/kg)	STLC (mg/L)
Antimony	6010	500	15
Arsenic	6010	500	5
Barium	6010	10,000	100
Beryllium	6010	75	0.75
Cadmium	6010	100	1
Chromium (VI)	7196	500	5
Chromium (total)	6010	2,500	5 **
Cobalt	6010	8,000	80
Copper	6010	2,500	25
Lead (total)	6010	1,000	5
Mercury	7471	20	0.2
Molybdenum	6010	3,500	350
Nickel	6010	2,000	20
Selenium	6010	100	1
Silver	6010	500	5
Thallium	6010	700	7
Vanadium	6010	2,400	24
Zinc	6010	5,000	250
VOCs (µg/kg)	8260	ND	
SVOCs (1) (µg/kg)			
Acenaphthene	8270	110.00	
Anthracene	8270	210.00	
Benzo(a)anthracene	8270	2,600.00	
Benzo(b)fluoranthene	8270	3,900.00	
Benzo(k)fluoranthene	8270	1,100.00	
Benzo(g,h,i)perylene	8270	2,200.00	
Benzo(a)pyrene	8270	2,900.00 #	
Chrysene	8270	2,900.00	
Dibenz(a,h)anthracene	8270	590.00	
Fluoranthene	8270	3,600.00	
Indeno(1,2,3-cd)pyrene	8270	2,400.00	
Phenanthrene	8270	870.00	
Pyrene	8270	3,400.00	
Carbon Chain Range (mg/kg)	sim. dist.	--	
PCBs (µg/kg)	8080	--	

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected
PCBs = Polychlorinated Biphenyls
= Exceeds Screening Value

VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
TTL = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
(1) SVOCs not listed were not detected
(2) Waste Extraction Test performed on this sample. Result was 0.91 mg/L.
(3) TCLP analysis performed on this sample. Result was <1.0 mg/L.

* Refer to Figure 5 for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 7
Analytical Data Summary
Remedial Excavation B37-RE-4 Excavated Confirmation Sample (Stockpile AP)

		Sample Number, Collection Date, Grid Location and Depth		
		B37-GS-180E-3'		
		6/6/97		
		A.8-6.5 @ 3' bgs*		
Analyte	EPA Method			
TRPH (mg/kg)	418.1	--		
Title 22 Metals (mg/kg)				
Antimony	6010	<5.00		Regulatory Levels
Arsenic	6010	32.00 #		TTL
Barium	6010	120.00		(mg/kg)
Beryllium	6010	<0.10		STLC
Cadmium	6010	1.50		(mg/L)
Chromium (VI)	7196	<0.50		
Chromium (total)	6010	35.00		
Cobalt	6010	7.10		
Copper	6010	20.00		
Lead (total)	6010	430.00 (1)(2) #		
Mercury	7471	<0.01		
Molybdenum	6010	<0.50		
Nickel	6010	14.00		
Selenium	6010	<1.00		
Silver	6010	<0.10		
Thallium	6010	<5.00		
Vanadium	6010	35.00		
Zinc	6010	120.00		
VOCs (µg/kg)	8260	--		
SVOCs (µg/kg)	8270	--		
Carbon Chain Range (mg/kg)	sim. dist.	--		
PCBs (µg/kg)	8080	--		

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

mg/L = milligrams per liter

-- = not analyzed

sim.dist. = simulated distillation

VOCs = Volatile Organic Compounds

= Exceeds Screening Value

SVOCs = Semi-volatile Organic Compounds

TRPH = Total Recoverable Petroleum Hydrocarbons

PCBs = Polychlorinated Biphenyls

TTL = California Total Threshold Limit Concentration

STLC = California Soluble Threshold Limit Concentration

(1) Waste Extraction Test performed on this sample. Result was 14 mg/L.

(2) TCLP analysis performed on this sample. Result was <1.0 mg/L.

bgs = below ground surface

* Refer to Figure 10B for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 8
Analytical Data Summary
Remedial Excavation B37-RE-4 Stockpile AP Sample*

Analyte	EPA Method	Sample Number and Collection Date	Regulatory Levels	
		B37-RE4-SP56 7/8/97		
TRPH (mg/kg)	418.1	100.00	TTL	STL
Title 22 Metals (mg/kg)			(mg/kg)	(mg/L)
Antimony	6010	<5.00	500	15
Arsenic	6010	23.00 #	500	5
Barium	6010	110.00	10,000	100
Beryllium	6010	<0.10	75	0.75
Cadmium	6010	1.40	100	1
Chromium (VI)	7196	<0.50	500	5
Chromium (total)	6010	33.00	2,500	5 **
Cobalt	6010	8.10	8,000	80
Copper	6010	18.00	2,500	25
Lead (total)	6010	6.60	1,000	5
Mercury	7471	<0.01	20	0.2
Molybdenum	6010	<0.50	3,500	350
Nickel	6010	12.00	2,000	20
Selenium	6010	<1.00	100	1
Silver	6010	<0.10	500	5
Thallium	6010	<5.00	700	7
Vanadium	6010	31.00	2,400	24
Zinc	6010	62.00	5,000	250
VOCs (µg/kg)	8260	ND		
SVOCs (µg/kg)	8270	ND		
Carbon Chain Range (mg/kg)	sim. dist.	--		
PCBs (µg/kg)	8080	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected

PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
= Exceeds Screening Value

* Refer to Figure 5 for sample location

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 9
Analytical Data Summary
Remedial Excavation B37-RE-4 Excavated Confirmation Samples (Stockpile AQ)

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth	
		B37-GS-180E1-5' 6/25/97 A.7/A.8-6.5 @ 5' bgs*	B37-GS-180E3-5' 6/25/97 A.7/A.8-6.5 @ 5' bgs*
TRPH (mg/kg)	418.1	--	--
Regulatory Levels			
Title 22 Metals (mg/kg)		TTL	STL
		(mg/kg)	(mg/L)
Antimony	6010	<5.00	<5.00
Arsenic	6010	42.00 #	54.00 (1) #
Barium	6010	120.00	160.00
Beryllium	6010	<0.10	<0.10
Cadmium	6010	1.80	27.00 (2) #
Chromium (VI)	7196	<0.50	<0.50
Chromium (total)	6010	32.00	40.00
Cobalt	6010	8.10	8.50
Copper	6010	15.00	28.00
Lead (total)	6010	<1.00	<1.00
Mercury	7471	<0.01	<0.01
Molybdenum	6010	<0.50	<0.50
Nickel	6010	14.00	17.00
Selenium	6010	<1.00	<1.00
Silver	6010	<0.10	<0.10
Thallium	6010	<5.00	<5.00
Vanadium	6010	39.00	43.00
Zinc	6010	45.00	64.00
VOCs (µg/kg)	8260	--	--
SVOCs (µg/kg)	8270	--	--
Carbon Chain Range (mg/kg)	sim. dist.	--	--
PCBs (µg/kg)	8080	--	--

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
sim.dist. = simulated distillation
ND = not detected
= Exceeds Screening Value
bgs = below ground surface

PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons
TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
(1) Waste Extraction Test performed on this sample. Result was 3.9 mg/L.
(2) Waste Extraction Test performed on this sample. Result was 0.12 mg/L.

* Refer to Figure 10C for sample location

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 10
Analytical Data Summary
Remedial Excavation B37-RE-5 Excavated Hot Spot Sample

		Sample Number, Collection Date, Grid Location and Depth		
		B37-GS-154-2.5'		
		4/25/97		
		L/M-1.5 @ 2.5' bgs*		
Analyte	EPA Method			
TRPH (mg/kg)	418.1	270.00	Regulatory Levels	
Title 22 Metals (mg/kg)			TTLc (mg/kg)	STLC (mg/L)
Antimony	6010	<5.00	500	15
Arsenic	6010	<1.00	500	5
Barium	6010	94.00	10,000	100
Beryllium	6010	<0.10	75	0.75
Cadmium	6010	<0.10	100	1
Chromium (VI)	7196	<0.50	500	5
Chromium (total)	6010	21.00	2,500	5 **
Cobalt	6010	6.50	8,000	80
Copper	6010	10.00	2,500	25
Lead (total)	6010	<1.00	1,000	5
Mercury	7471	<0.01	20	0.2
Molybdenum	6010	<0.50	3,500	350
Nickel	6010	8.40	2,000	20
Selenium	6010	<1.00	100	1
Silver	6010	<0.10	500	5
Thallium	6010	<5.00	700	7
Vanadium	6010	26.00	2,400	24
Zinc	6010	36.00	5,000	250
VOCs (µg/kg)	8260	ND		
SVOCs (1) (µg/kg)				
bis (2-Ethylhexyl)Phthalate	8270	120.00		
Carbon Chain Range (mg/kg)	sim. dist.	--		
PCBs (µg/kg)	8080	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed
bgs = below ground surface
ND = not detected
sim.dist. = simulated distillation

VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls
(1) SVOCs not listed were not detected
TTLc = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

* Refer to Figure 7 for sample location

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 11
Analytical Data Summary
Remedial Excavation B37-RE-5 Stockpile Samples*

		Sample Number and Collection Date						
		B37-RE5-SP1	B37-RE5-SP1A	B37-RE5-SP2	B37-RE5-SP3	B37-RE5-SP4		
Analyte	EPA Method	4/25/97	6/19/97	5/6/97	5/12/97	5/12/97		
TRPH (mg/kg)	418.1	240.00	--	200.00	27.00	<8.00	Regulatory Levels	
							TTLc	STLC
Title 22 Metals (mg/kg)							(mg/kg)	(mg/L)
Antimony	6010	<5.00	--	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	--	<1.00	<1.00	<1.00	500	5
Barium	6010	120.00	--	130.00	97.00	110.00	10,000	100
Beryllium	6010	<0.10	--	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	--	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	--	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	21.00	--	20.00	20.00	21.00	2,500	5 **
Cobalt	6010	7.80	--	7.50	7.20	7.90	8,000	80
Copper	6010	12.00	--	14.00	12.00	13.00	2,500	25
Lead (total)	6010	<1.00	--	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	--	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	--	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	10.00	--	11.00	11.00	10.00	2,000	20
Selenium	6010	<1.00	--	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	--	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	--	<5.00	<5.00	<5.00	700	7
Vanadium	6010	24.00	--	27.00	26.00	29.00	2,400	24
Zinc	6010	40.00	--	41.00	43.00	40.00	5,000	250
VOCs (µg/kg)	8260	ND	--	ND	ND	ND		
SVOCs (1) (µg/kg)								
Chrysene	8270	<100.00	--	160.00	<100.00	<100.00		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (1) (µg/kg)								
PCB-1242	8080	--	710.00	--	--	--		

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
mg/L = milligrams per liter
-- = not analyzed

sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
TRPH = Total Recoverable Petroleum Hydrocarbons

PCBs = Polychlorinated Biphenyls
(1) SVOCs and PCBs not listed were not detected
TTLc = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration

* Refer to Figure 8 for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
Page 1 of 10

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth					Regulatory Levels	
		B37-GS-155-6' 4/29/97 A.4/A.5-2.5 @ 6' bgs*	B37-GS-156-4' 4/29/97 A.4/A.5-3.5 @ 4' bgs*	B37-GS-157-4' 4/29/97 A.4/A.5-4.5 @ 4' bgs*	B37-GS-158-4' 4/29/97 A.4/A.5-5.5 @ 4' bgs*	B37-GS-159-4' 4/29/97 A.4/A.5-6.5 @ 4' bgs*		
TRPH (mg/kg)	418.1	<8.00	<8.00	<8.00	<8.00	<8.00	TTL	STL
Title 22 Metals (mg/kg)							(mg/kg)	(mg/L)
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	130.00	97.00	110.00	91.00	120.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	22.00	20.00	26.00	22.00	22.00	2,500	5 **
Cobalt	6010	11.00	5.50	7.70	6.70	7.60	8,000	80
Copper	6010	7.80	11.00	15.00	17.00	12.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	8.70	9.70	15.00	14.00	14.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	24.00	25.00	27.00	28.00	24.00	2,400	24
Zinc	6010	52.00	36.00	45.00	43.00	39.00	5,000	250
VOCs (µg/kg)	8260	--	ND	--	--	--		
SVOCs (1) (µg/kg)								
Benzo (a) Anthracene	8270	--	<100.00	--	--	--		
Benzo (b) Fluoranthene	8270	--	<250.00	--	--	--		
Benzo (a) Pyrene	8270	--	<250.00	--	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	--	<100.00	--	--	--		
Chrysene	8270	--	<100.00	--	--	--		
Fluoranthene	8270	--	<100.00	--	--	--		
Phenanthrene	8270	--	<100.00	--	--	--		
Pyrene	8270	--	<100.00	--	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (µg/kg)	8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations
** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.
NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
Page 2 of 10

		Sample Number, Collection Date, Grid Location and Depth						
		B37-GS-160-4' 4/29/97 A.4/A.5-7.5 @ 4' bgs*	B37-GS-161-4' 4/29/97 A.4/A.5-8.5 @ 4' bgs*	B37-GS-162-1.5' 4/29/97 A.5/A.6-2.5 @ 1.5' bgs*	B37-GS-163-1.5' 4/29/97 A.5/A.6-3.5 @ 1.5' bgs*	B37-GS-164-1.5' 4/29/97 A.5/A.6-4.5 @ 1.5' bgs*		
Analyte	EPA Method							
TRPH (mg/kg)	418.1	<8.00	<8.00	44.00	51.00	76.00	Regulatory Levels	
							TTL	STL
							(mg/kg)	(mg/L)
Title 22 Metals (mg/kg)								
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	100.00	100.00	97.00	100.00	120.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	16.00 (2)	12.00 (3)	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	14.00	20.00	20.00	20.00	50.00 (4)	2,500	5 **
Cobalt	6010	7.10	6.40	6.30	7.50	7.50	8,000	80
Copper	6010	9.20	13.00	9.80	9.80	27.00	2,500	25
Lead (total)	6010	<1.00	<1.00	3.00	28.00	27.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	10.00	11.00	8.70	12.00	14.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	18.00	23.00	22.00	22.00	31.00	2,400	24
Zinc	6010	30.00	38.00	41.00	98.00	84.00	5,000	250
VOCs (µg/kg)	8260	--	--	--	--	--		
SVOCs (1) (µg/kg)								
Benzo (a) Anthracene	8270	--	--	--	--	--		
Benzo (b) Fluoranthene	8270	--	--	--	--	--		
Benzo (a) Pyrene	8270	--	--	--	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	--	--	--	--	--		
Chrysene	8270	--	--	--	--	--		
Fluoranthene	8270	--	--	--	--	--		
Phenanthrene	8270	--	--	--	--	--		
Pyrene	8270	--	--	--	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (µg/kg)	8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

- (1) SVOCs not listed were not detected
(2) Waste Extraction Test performed on this sample. Result was 0.82 mg/L.
(3) Waste Extraction Test performed on this sample. Result was 0.92 mg/L.
(4) Waste Extraction Test performed on this sample. Result was 1.6 mg/L.

* Refer to Figures 9 and 10A through 10D for sample locations

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
Page 3 of 10

Analyte		EPA Method		Sample Number, Collection Date, Grid Location and Depth					
				B37-GS-165A-3'	B37-GS-165B-5'	B37-GS-165C-3'	B37-GS-165D-3'	B37-GS-165E-3'	
				5/22/97	5/22/97	6/11/97	6/11/97	6/11/97	
		A.5/A.6-5.5 @ 3' bgs*	A.5/A.6-5.5 @ 5' bgs*	A.5/A.6-5.5 @ 3' bgs*	A.5/A.6-5 @ 3' bgs*	A.6-5.5 @ 3' bgs*			
TRPH (mg/kg)		418.1	--	--	--	--	--	Regulatory Levels	
								TTL	STL
Title 22 Metals (mg/kg)								(mg/kg)	(mg/L)
Antimony	6010	--	--	--	--	--	--	500	15
Arsenic	6010	--	--	--	--	--	--	500	5
Barium	6010	--	--	--	--	--	--	10,000	100
Beryllium	6010	--	--	--	--	--	--	75	0.75
Cadmium	6010	--	--	--	--	--	--	100	1
Chromium (VI)	7196	--	--	--	--	--	--	500	5
Chromium (total)	6010	--	--	--	--	--	--	2,500	5 **
Cobalt	6010	--	--	--	--	--	--	8,000	80
Copper	6010	--	--	--	--	--	--	2,500	25
Lead (total)	6010	--	--	--	--	--	--	1,000	5
Mercury	7471	--	--	--	--	--	--	20	0.2
Molybdenum	6010	--	--	--	--	--	--	3,500	350
Nickel	6010	--	--	--	--	--	--	2,000	20
Selenium	6010	--	--	--	--	--	--	100	1
Silver	6010	--	--	--	--	--	--	500	5
Thallium	6010	--	--	--	--	--	--	700	7
Vanadium	6010	--	--	--	--	--	--	2,400	24
Zinc	6010	--	--	--	--	--	--	5,000	250
VOCs (µg/kg)		8260	--	--	--	--	--		
SVOCs (1) (µg/kg)									
Benzo (a) Anthracene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00		
Benzo (b) Fluoranthene	8270	<250.00	<250.00	<250.00	<250.00	<250.00	<250.00		
Benzo (a) Pyrene	8270	400.00	<250.00	<250.00	<250.00	<250.00	<250.00		
Bis(2-Ethylhexyl) Phthalate	8270	450.00	<100.00	<100.00	<100.00	<100.00	<100.00		
Chrysene	8270	<100.00	<100.00	<100.00	<100.00	120.00	<100.00		
Fluoranthene	8270	170.00	<100.00	<100.00	<100.00	130.00	<100.00		
Phenanthrene	8270	<100.00	<100.00	<100.00	<100.00	<100.00	<100.00		
Pyrene	8270	360.00	<100.00	<100.00	<100.00	110.00	<100.00		
Carbon Chain Range (mg/kg)		sim. dist.	--	--	--	--	--		
PCBs (µg/kg)		8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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Analyte		EPA Method	Sample Number, Collection Date, Grid Location and Depth					Regulatory Levels		
			B37-GS-165F-3' 6/11/97	B37-GS-165G-3' 6/11/97	B37-GS-166-1.5' 4/29/97	B37-GS-167-1.5' 4/29/97	B37-GS-168-1.5' 4/29/97			
			A.5/A.6-6 @ 3' bgs*	A.5-5.5 @ 3' bgs*	A.5/A.6-6.5 @ 1.5' bgs*	A.5/A.6-7.5 @ 1.5' bgs*	A.5/A.6-8.5 @ 1.5' bgs*			
									TTL	STL
									(mg/kg)	(mg/L)
TRPH (mg/kg)	418.1	--	--	85.00	77.00	69.00	500	15		
Title 22 Metals (mg/kg)									10,000	100
Antimony	6010	--	--	<5.00	<5.00	<5.00	75	0.75		
Arsenic	6010	--	--	<1.00	<1.00	<1.00	100	1		
Barium	6010	--	--	110.00	100.00	72.00	500	5		
Beryllium	6010	--	--	<0.10	<0.10	<0.10	10,000	100		
Cadmium	6010	--	--	8.70	5.50	<0.10	75	0.75		
Chromium (VI)	7196	--	--	<0.50	<0.50	<0.50	100	1		
Chromium (total)	6010	--	--	64.00 (2)	44.00	19.00	500	5		
Cobalt	6010	--	--	7.20	6.00	6.10	500	5		
Copper	6010	--	--	30.00	22.00	10.00	8,000	80		
Lead (total)	6010	--	--	83.00 (3)	17.00	<1.00	2,500	25		
Mercury	7471	--	--	<0.01	<0.01	<0.01	1,000	5		
Molybdenum	6010	--	--	<0.50	<0.50	<0.50	20	0.2		
Nickel	6010	--	--	12.00	12.00	7.60	3,500	350		
Selenium	6010	--	--	<1.00	<1.00	<1.00	2,000	20		
Silver	6010	--	--	<0.10	<0.10	<0.10	100	1		
Thallium	6010	--	--	<5.00	<5.00	<5.00	500	5		
Vanadium	6010	--	--	27.00	28.00	21.00	700	7		
Zinc	6010	--	--	98.00	72.00	40.00	2,400	24		
									5,000	250
VOCs (µg/kg)									8260	--
									--	--
SVOCs (1) (µg/kg)									--	--
Benzo (a) Anthracene	8270	<100.00	<100.00	--	--	<100.00	--	--		
Benzo (b) Fluoranthene	8270	<250.00	<250.00	--	--	<250.00	--	--		
Benzo (a) Pyrene	8270	<250.00	<250.00	--	--	<250.00	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	<100.00	<100.00	--	--	<100.00	--	--		
Chrysene	8270	<100.00	<100.00	--	--	<100.00	--	--		
Fluoranthene	8270	<100.00	<100.00	--	--	<100.00	--	--		
Phenanthrene	8270	<100.00	<100.00	--	--	<100.00	--	--		
Pyrene	8270	<100.00	<100.00	--	--	<100.00	--	--		
Carbon Chain Range (mg/kg)									sim. dist.	--
									--	--
PCBs (µg/kg)									8080	--
									--	--

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

(1) SVOCs not listed were not detected
(2) Waste Extraction Test performed on this sample. Result was 2.1 mg/L.
(3) Waste Extraction Test performed on this sample. Result was 1.8 mg/L.

* Refer to Figures 9 and 10A through 10D for sample locations

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth					Regulatory Levels	
		B37-GS-169-1.5' 4/30/97 A.6/A.7-2.5 @ 1.5' bgs*	B37-GS-170-1.5' 4/30/97 A.6/A.7-3.5 @ 1.5' bgs*	B37-GS-170A-5.5' 5/9/97 A.6/A.7-3.5 @ 5.5' bgs*	B37-GS-171-1.5' 4/30/97 A.6/A.7-4.5 @ 1.5' bgs*	B37-GS-172-1.5' 4/30/97 A.6/A.7-5.5 @ 1.5' bgs*		
TRPH (mg/kg)	418.1	33.00	1,700.00	<8.00	52.00	13.00	TTL	STL
Title 22 Metals (mg/kg)							(mg/kg)	(mg/L)
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	73.00	97.00	220.00	110.00	100.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	2.80	2.20	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	18.00	17.00	31.00	33.00	27.00	2,500	5 **
Cobalt	6010	5.10	6.30	9.70	7.40	6.60	8,000	80
Copper	6010	7.20	11.00	8.40	17.00	67.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	3.00	13.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	8.30	9.20	8.00	11.00	12.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	19.00	22.00	29.00	27.00	27.00	2,400	24
Zinc	6010	37.00	37.00	54.00	65.00	59.00	5,000	250
VOCs (µg/kg)	8260	--	ND	ND	--	--		
SVOCs (1) (µg/kg)								
Benzo (a) Anthracene	8270	--	<100.00	<100.00	--	--		
Benzo (b) Fluoranthene	8270	--	<250.00	<250.00	--	--		
Benzo (a) Pyrene	8270	--	<250.00	<250.00	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	--	<100.00	<100.00	--	--		
Chrysene	8270	--	<100.00	<100.00	--	--		
Fluoranthene	8270	--	<100.00	<100.00	--	--		
Phenanthrene	8270	--	<100.00	<100.00	--	--		
Pyrene	8270	--	<100.00	<100.00	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (µg/kg)	8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim. dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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		Sample Number, Collection Date, Grid Location and Depth						
		B37-GS-173-1.5' 4/30/97 A.6/A.7-6.5 @ 1.5' bgs*	B37-GS-174-1.5' 4/30/97 A.6/A.7-7.5 @ 1.5' bgs*	B37-GS-175-1.5' 4/30/97 A.6/A.7-8.5 @ 1.5' bgs*	B37-GS-176-5.5' 5/1/97 A.7/A.8-2.5 @ 5.5' bgs*	B37-GS-177-1.5' 5/1/97 A.7/A.8-3.5 @ 1.5' bgs*		
Analyte	EPA Method							
TRPH (mg/kg)	418.1	30.00	<8.00	80.00	<8.00	51.00	Regulatory Levels	
							TTLC (mg/kg)	STLC (mg/L)
Title 22 Metals (mg/kg)								
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	97.00	110.00	110.00	110.00	120.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	2.20	<0.10	1.00	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	30.00	19.00	22.00	16.00	24.00	2,500	5 **
Cobalt	6010	7.10	6.40	6.60	4.40	7.10	8,000	80
Copper	6010	44.00	15.00	17.00	12.00	12.00	2,500	25
Lead (total)	6010	13.00	<1.00	20.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	12.00	9.90	13.00	7.50	11.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	29.00	23.00	25.00	20.00	25.00	2,400	24
Zinc	6010	64.00	37.00	52.00	40.00	53.00	5,000	250
VOCs (µg/kg)	8260	--	--	ND	--	--		
SVOCs (1) (µg/kg)								
Benzo (a) Anthracene	8270	--	--	<100.00	--	--		
Benzo (b) Fluoranthene	8270	--	--	<250.00	--	--		
Benzo (a) Pyrene	8270	--	--	<250.00	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	--	--	<100.00	--	--		
Chrysene	8270	--	--	<100.00	--	--		
Fluoranthene	8270	--	--	<100.00	--	--		
Phenanthrene	8270	--	--	<100.00	--	--		
Pyrene	8270	--	--	<100.00	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (µg/kg)	8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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		Sample Number, Collection Date, Grid Location and Depth							
		B37-GS-178C-3' 6/5/97	B37-GS-178D-3' 6/5/97	B37-GS-178E-3' 6/5/97	B37-GS-178F-3' 6/5/97	B37-GS-178G-3' 6/5/97			
Analyte	EPA Method	A.7/A.8-4.5 @ 3' bgs*	A.7/A.8-4 @ 3' bgs*	A.8-4 @ 3' bgs*	A.7/A.8-5 @ 3' bgs*	A.7-4.5 @ 3' bgs*			
								Regulatory Levels	
TRPH (mg/kg)	418.1	--	--	--	--	--	TTLC (mg/kg)	STLC (mg/L)	
Title 22 Metals (mg/kg)									
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15	
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5	
Barium	6010	140.00	130.00	130.00	120.00	110.00	10,000	100	
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75	
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100	1	
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5	
Chromium (total)	6010	33.00	35.00	37.00	31.00	35.00	2,500	5 **	
Cobalt	6010	8.00	8.40	9.60	7.90	8.20	8,000	80	
Copper	6010	17.00	17.00	19.00	17.00	37.00	2,500	25	
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5	
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2	
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350	
Nickel	6010	17.00	15.00	15.00	14.00	15.00	2,000	20	
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1	
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5	
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7	
Vanadium	6010	32.00	39.00	34.00	26.00	30.00	2,400	24	
Zinc	6010	67.00	60.00	73.00	60.00	62.00	5,000	250	
VOCs (µg/kg)	8260	--	--	--	--	--			
SVOCs (1) (µg/kg)									
Benzo (a) Anthracene	8270	--	--	--	--	--			
Benzo (b) Fluoranthene	8270	--	--	--	--	--			
Benzo (a) Pyrene	8270	--	--	--	--	--			
Bis(2-Ethylhexyl) Phthalate	8270	--	--	--	--	--			
Chrysene	8270	--	--	--	--	--			
Fluoranthene	8270	--	--	--	--	--			
Phenanthrene	8270	--	--	--	--	--			
Pyrene	8270	--	--	--	--	--			
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--			
PCBs (µg/kg)	8080	--	--	--	--	--			

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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		Sample Number, Collection Date, Grid Location and Depth							
		B37-GS-179-1.5' 5/1/97	B37-GS-180C-3' 6/6/97	B37-GS-180D-3' 6/6/97	B37-GS-180E2-5' 6/25/97	B37-GS-180E4-5' 6/25/97			
Analyte	EPA Method	A.7/A.8-5.5 @ 1.5' bgs*	A.7/A.8-6.5 @ 3' bgs*	A.7/A.8-6 @ 3' bgs*	A.7/A.8-6.5 @ 5' bgs*	A.7/A.8-6.5 @ 5' bgs*			
								Regulatory Levels	
TRPH (mg/kg)	418.1	150.00	--	--	--	--	TTLc (mg/kg)	STLC (mg/L)	
Title 22 Metals (mg/kg)									
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15	
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5	
Barium	6010	110.00	120.00	120.00	120.00	85.00	10,000	100	
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75	
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100	1	
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5	
Chromium (total)	6010	23.00	26.00	34.00	36.00	41.00	2,500	5 **	
Cobalt	6010	8.20	8.00	9.60	8.50	9.00	8,000	80	
Copper	6010	12.00	10.00	15.00	13.00	17.00	2,500	25	
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5	
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2	
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350	
Nickel	6010	11.00	8.40	15.00	15.00	13.00	2,000	20	
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1	
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5	
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7	
Vanadium	6010	24.00	28.00	35.00	36.00	44.00	2,400	24	
Zinc	6010	49.00	50.00	56.00	37.00	61.00	5,000	250	
VOCs (µg/kg)	8260	--	--	--	--	--			
SVOCs (1) (µg/kg)									
Benzo (a) Anthracene	8270	--	--	--	--	--			
Benzo (b) Fluoranthene	8270	--	--	--	--	--			
Benzo (a) Pyrene	8270	--	--	--	--	--			
Bis(2-Ethylhexyl) Phthalate	8270	--	--	--	--	--			
Chrysene	8270	--	--	--	--	--			
Fluoranthene	8270	--	--	--	--	--			
Phenanthrene	8270	--	--	--	--	--			
Pyrene	8270	--	--	--	--	--			
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--			
PCBs (µg/kg)	8080	--	--	--	--	--			

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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		Sample Number, Collection Date, Grid Location and Depth						
		B37-GS-180E5-5' 6/25/97 A.7/A.8-6.5 @ 5' bgs*	B37-GS-180E6-7' 1/8/98 A.7/A.8-6.5 @ 7' bgs*	B37-GS-180F-3' 6/6/97 A.7/A.8-7 @ 3' bgs*	B37-GS-180G-3' 6/6/97 A.7-6.5 @ 3' bgs*	B37-GS-181-1.5' 5/1/97 A.7/A.8-7.5 @ 1.5' bgs*		
Analyte	EPA Method							
TRPH (mg/kg)	418.1	--	--	--	--	21.00	Regulatory Levels	
							TTLc (mg/kg)	STLC (mg/L)
Title 22 Metals (mg/kg)								
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	130.00	93.00	120.00	110.00	91.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	32.00	23.00	28.00	25.00	19.00	2,500	5 **
Cobalt	6010	10.00	8.20	8.30	8.30	9.50	8,000	80
Copper	6010	16.00	19.00	12.00	22.00	8.50	2,500	25
Lead (total)	6010	<1.00	4.30	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	13.00	12.00	13.00	11.00	7.60	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	31.00	45.00	33.00	29.00	24.00	2,400	24
Zinc	6010	70.00	69.00	48.00	44.00	29.00	5,000	250
VOCs (µg/kg)	8260	--	--	--	--	ND		
SVOCs (1) (µg/kg)								
Benzo (a) Anthracene	8270	--	--	--	--	220.00		
Benzo (b) Fluoranthene	8270	--	--	--	--	260.00		
Benzo (a) Pyrene	8270	--	--	--	--	<250.00		
Bis(2-Ethylhexyl) Phthalate	8270	--	--	--	--	<100.00		
Chrysene	8270	--	--	--	--	240.00		
Fluoranthene	8270	--	--	--	--	340.00		
Phenanthrene	8270	--	--	--	--	120.00		
Pyrene	8270	--	--	--	--	150.00		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (µg/kg)	8080	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 12
Analytical Data Summary
Remedial Excavation B37-RE-4 Confirmation Samples
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Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth			Regulatory Levels	
		B37-GS-182-6' 5/1/97 A.8/A.9-2.5 @ 6' bgs*	B37-GS-184-1.5' 5/9/97 A.7/A.8-8.5 @ 1.5' bgs*	B37-GS-185-6' 5/9/97 A.8/A.9-3.5 @ 6' bgs*		
TRPH (mg/kg)	418.1	<8.00	<8.00	<8.00	TTL	STL
Title 22 Metals (mg/kg)					(mg/kg)	(mg/L)
Antimony	6010	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	500	5
Barium	6010	110.00	180.00	86.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	18.00	25.00	24.00	2,500	5 **
Cobalt	6010	7.60	7.80	5.30	8,000	80
Copper	6010	10.00	14.00	12.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	6.40	12.00	7.30	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	700	7
Vanadium	6010	20.00	30.00	24.00	2,400	24
Zinc	6010	49.00	42.00	57.00	5,000	250
VOCs (µg/kg)	8260	--	--	--		
SVOCs (1) (µg/kg)						
Benzo (a) Anthracene	8270	--	--	--		
Benzo (b) Fluoranthene	8270	--	--	--		
Benzo (a) Pyrene	8270	--	--	--		
Bis(2-Ethylhexyl) Phthalate	8270	--	--	--		
Chrysene	8270	--	--	--		
Fluoranthene	8270	--	--	--		
Phenanthrene	8270	--	--	--		
Pyrene	8270	--	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--		
PCBs (µg/kg)	8080	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface

ND = not detected
sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

TTL = California Total Threshold Limit Concentration
STL = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons
(1) SVOCs not listed were not detected

* Refer to Figures 9 and 10A through 10D for sample locations
** STL is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.
NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 13
Analytical Data Summary
Remedial Excavation B37-RE-5 Confirmation Samples
Page 1 of 3

Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth						Regulatory Levels	
		B37-GS-186-2' 5/13/97 H/J-1 @ 2' bgs*	B37-GS-187-2' 5/13/97 H/J-2.5 @ 2' bgs*	B37-GS-188-2' 5/13/97 H/J-3.5 @ 2' bgs*	B37-GS-189-5.5' 5/13/97 H/J-1.5 @ 5.5' bgs*	B37-GS-190-5.5' 5/13/97 J-2.5 @ 5.5' bgs*	B37-GS-191-5.5' 5/14/97 J-3 @ 5.5' bgs*		
								TTLC (mg/kg)	STLC (mg/L)
TRPH (mg/kg)	418.1	46.00	24.00	19.00	<8.00	<8.00	<8.00		
Title 22 Metals (mg/kg)									
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	90.00	83.00	110.00	200.00	180.00	130.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	36.00	21.00	26.00	36.00	25.00	29.00	2,500	5 **
Cobalt	6010	7.20	5.00	8.40	11.00	9.90	9.70	8,000	80
Copper	6010	15.00	10.00	16.00	13.00	9.90	13.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	10.00	9.40	13.00	14.00	8.90	11.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	29.00	24.00	31.00	38.00	28.00	31.00	2,400	24
Zinc	6010	57.00	39.00	55.00	86.00	54.00	67.00	5,000	250
VOCs (µg/kg)	8260	ND	ND	ND	--	ND	--		
SVOCs (1) (µg/kg)									
Chrysene	8270	<100.00	<100.00	220.00	--	<100.00	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--	--		
PCBs (1) (µg/kg)									
PCB-1260	8080	--	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface
ND = not detected

sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

(1) SVOCs and PCBs not listed were not detected
TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

* Refer to Figure 11 for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 13
Analytical Data Summary
Remedial Excavation B37-RE-5 Confirmation Samples
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Analyte	EPA Method	Sample Number, Collection Date, Grid Location and Depth						Regulatory Levels	
		B37-GS-192-2' 5/14/97 J/K-1 @ 2' bgs*	B37-GS-193-5.5' 5/14/97 J/K-1.5 @ 5.5' bgs*	B37-GS-194-5.5' 5/14/97 J/K-3 @ 5.5' bgs*	B37-GS-195-2' 5/14/97 J-4 @ 2' bgs*	B37-GS-196-2' 5/14/97 K/L-1 @ 2' bgs*	B37-GS-197-5.5' 5/14/97 K-1.5 @ 5.5' bgs*		
TRPH (mg/kg)	418.1	21.00	<8.00	<8.00	51.00	30.00	37.00	TTLC (mg/kg)	STLC (mg/L)
Title 22 Metals (mg/kg)									
Antimony	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	500	15
Arsenic	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	500	5
Barium	6010	120.00	110.00	360.00	130.00	100.00	84.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	24.00	29.00	38.00	29.00	22.00	17.00	2,500	5 **
Cobalt	6010	8.50	9.90	5.30	8.20	8.00	6.90	8,000	80
Copper	6010	13.00	15.00	10.00	18.00	11.00	10.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	11.00	11.00	11.00	14.00	12.00	8.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	30.00	32.00	35.00	31.00	24.00	24.00	2,400	24
Zinc	6010	52.00	67.00	57.00	59.00	43.00	36.00	5,000	250
VOCs (µg/kg)									
VOCs (1) (µg/kg)	8260	ND	--	--	ND	--	--		
SVOCs (1) (µg/kg)									
Chrysene	8270	<100.00	--	--	<100.00	--	--		
Carbon Chain Range (mg/kg)									
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--	--		
PCBs (1) (µg/kg)									
PCB-1260	8080	--	--	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface
ND = not detected

(1) SVOCs and PCBs not listed were not detected
TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

* Refer to Figure 11 for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 13
Analytical Data Summary
Remedial Excavation B37-RE-5 Confirmation Samples
Page 3 of 3

		Sample Number, Collection Date, Grid Location and Depth						
		B37-GS-198-2' 5/14/97	B37-GS-199-5.5' 5/15/97	B37-GS-200-2' 5/15/97	B37-GS-201-5.5' 5/15/97	B37-GS-202-2' 5/15/97		
Analyte	EPA Method	L/M-1 @ 2' bgs*	L/M-1.5 @ 5.5' bgs*	M-1.5 @ 2' bgs*	L/M-2.5 @ 5.5' bgs*	M-3 @2' bgs*		
TRPH (mg/kg)	418.1	130.00	<8.00	21.00	<8.00	9.50	Regulatory Levels	
Title 22 Metals (mg/kg)							TTLC (mg/kg)	STLC (mg/L)
Antimony	6010	<5.0	<5.0	<5.0	<5.0	<5.0	500	15
Arsenic	6010	<1.0	<1.0	<1.0	<1.0	<1.0	500	5
Barium	6010	84.00	140.00	120.00	120.00	110.00	10,000	100
Beryllium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	75	0.75
Cadmium	6010	<0.10	<0.10	<0.10	<0.10	<0.10	100	1
Chromium (VI)	7196	<0.50	<0.50	<0.50	<0.50	<0.50	500	5
Chromium (total)	6010	18.00	35.00	27.00	30.00	32.00	2,500	5 **
Cobalt	6010	7.40	8.40	9.10	8.70	9.90	8,000	80
Copper	6010	10.00	12.00	18.00	9.50	17.00	2,500	25
Lead (total)	6010	<1.00	<1.00	<1.00	<1.00	<1.00	1,000	5
Mercury	7471	<0.01	<0.01	<0.01	<0.01	<0.01	20	0.2
Molybdenum	6010	<0.50	<0.50	<0.50	<0.50	<0.50	3,500	350
Nickel	6010	8.80	12.00	13.00	11.00	15.00	2,000	20
Selenium	6010	<1.00	<1.00	<1.00	<1.00	<1.00	100	1
Silver	6010	<0.10	<0.10	<0.10	<0.10	<0.10	500	5
Thallium	6010	<5.00	<5.00	<5.00	<5.00	<5.00	700	7
Vanadium	6010	24.00	41.00	31.00	31.00	35.00	2,400	24
Zinc	6010	42.00	58.00	50.00	49.00	58.00	5,000	250
VOCs (µg/kg)	8260	ND	--	ND	--	--		
SVOCs (1) (µg/kg)								
Chrysene	8270	<100.00	--	<100.00	--	--		
Carbon Chain Range (mg/kg)	sim. dist.	--	--	--	--	--		
PCBs (1) (µg/kg)								
PCB-1260	8080	32.00	--	--	--	--		

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/L = micrograms per liter
-- = not analyzed
bgs = below ground surface
ND = not detected

(1) SVOCs and PCBs not listed were not detected
TTLC = California Total Threshold Limit Concentration
STLC = California Soluble Threshold Limit Concentration
TRPH = Total Recoverable Petroleum Hydrocarbons

sim.dist. = simulated distillation
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PCBs = Polychlorinated biphenyls

* Refer to Figure 11 for sample locations

** STLC is 560 mg/L when TCLP is performed and result is less than 5 mg/L per CCR Title 22.

NOTE: Site-Specific Health-Based Soil Screening Values Presented in Table 14 are Reported in mg/kg

TABLE 14
Site-Specific Health-Based Soil Screening Values for
Organic Constituents Soil Exposure Pathways (mg/kg)
Page 1 of 5

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
1-butanol	1.98E+04	3.46E+04	1.98E+04
1,1-dichloroethane	2.23E+03	1.10E+03	1.10E+03
1,1-dichloroethene	1.57E+01	4.21E+00	4.21E+00
1,1,1,2-tetrachloroethane	4.98E+02	1.44E+04	4.98E+02
1,1,2-trichloroethane	2.23E+02	1.26E+03	2.23E+02
1,1,2,2-tetrachloroethane	6.25E+01	1.50E+03	6.25E+01
1,2-dibromo-3-chloropropane	2.42E+00	7.47E+01	2.42E+00
1,2-dibromoethane	4.86E+00	1.84E+02	4.86E+00
1,2-dichlorobenzene	NA	2.64E+06	2.64E+06
1,2-dichloroethane	2.06E+02	2.66E+02	2.06E+02
1,2-dichloropropane	3.37E+01	7.25E+00	7.25E+00
1,2-diphenylhydrazine	2.03E+01	2.36E+08	2.03E+01
1,2,3-trichloropropane	2.39E+00	4.08E+01	2.39E+00
1,2,4-trichlorobenzene	1.74E+02	4.74E+07	1.74E+02
1,3-dichloropropene	4.83E+01	6.63E+02	4.83E+01
1,4-dichlorobenzene	4.32E+02	4.37E+04	4.32E+02
2-butanone	3.28E+04	2.35E+06	3.28E+04
2-chlorophenol	8.57E+02	1.17E+06	8.57E+02
2-methylphenol	8.66E+03	7.59E+07	8.66E+03
2-naphthylamine	9.81E+00	1.63E+06	9.81E+00
2,4-dichlorophenol	5.21E+01	2.22E+07	5.21E+01
2,4-dimethylphenol	3.48E+03	4.37E+08	3.48E+03
2,4-dinitrophenol	3.49E+01	7.14E+09	3.49E+01
2,4-dinitrotoluene	3.48E+01	7.62E+06	3.48E+01
2,4,5-trichlorophenol	1.73E+04	2.21E+08	1.73E+04
2,4,6-trichlorophenol	2.52E+02	1.10E+07	2.52E+02
2,6-dinitrotoluene	2.59E+01	4.51E+05	2.59E+01
3,3-dichlorobenzidine	1.47E+01	7.53E+08	1.47E+01
4-chloroaniline	6.93E+01	6.50E+06	6.93E+01
4-methyl-2-pentanone	1.20E+04	6.84E+05	1.20E+04
4-methylphenol	8.69E+01	4.01E+07	8.69E+01
4,4-ddd	1.03E+02	9.97E+08	1.03E+02
4,4-dde	7.28E+01	2.83E+06	7.28E+01
4,4-ddt	1.22E+01	2.26E+08	1.22E+01
acenaphthene	8.10E+03	1.62E+08	8.10E+03
acetone	1.55E+04	4.37E+05	1.55E+04
acrolein	NA	8.05E+01	8.05E+01
acrylonitrile	1.59E+01	7.65E+01	1.59E+01

TABLE 14
Site-Specific Health-Based Soil Screening Values for
Organic Constituents Soil Exposure Pathways (mg/kg)
Page 2 of 5

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
aldrin	7.32E-01	2.82E+04	7.32E-01
alpha-bhc	3.93E+00	2.32E+05	3.93E+00
aniline	3.10E+03	1.02E+07	3.10E+03
anthracene	4.06E+03	1.37E+10	4.06E+03
aroclor 1016	NA	7.35E+05	7.35E+05
aroclor 1254	8.70E-01	5.69E+05	8.70E-01
benzene	1.43E+02	1.71E+02	1.43E+02
benzidine	3.52E-02	1.55E+02	3.52E-02
benzoic acid	6.96E+04	6.58E+10	6.96E+04
benzo(a)anthracene	1.14E+01	1.13E+09	1.14E+01
benzo(a)pyrene	1.14E+00	9.56E+07	1.14E+00
benzo(b)fluoranthene	1.14E+01	3.19E+08	1.14E+01
benzo(k)fluoranthene	1.14E+01	9.56E+07	1.14E+01
benzyl alcohol	1.73E+04	3.81E+08	1.73E+04
benzyl chloride	1.00E+02	4.03E+03	1.00E+02
beta-bhc	1.38E+01	9.94E+06	1.38E+01
beta-chloronaphthalene	NA	2.32E+07	2.32E+07
bis(2-chloro-1-methylethyl)ether	2.49E+02	2.93E+04	2.49E+02
bis(2-chloroethyl)ether	6.91E+00	6.91E+02	6.91E+00
bis(2-ethylhexyl)phthalate	2.10E+03	3.59E+09	2.10E+03
bromodichloromethane	1.30E+02	2.94E+03	1.30E+02
bromoform	3.34E+02	1.28E+05	3.34E+02
bromomethane	NA	1.15E+02	1.15E+02
carbazole	8.83E+02	6.66E+08	8.83E+02
carbon disulfide	1.43E+03	7.04E+04	1.43E+03
carbon tetrachloride	9.71E+01	1.35E+02	9.71E+01
chlordane	1.04E+00	1.55E+05	1.04E+00
chlorobenzene	NA	2.83E+04	2.83E+04
chloroform	1.49E+02	9.58E+02	1.49E+02
chloromethane	7.43E+02	7.40E+01	7.40E+01
chrysene	1.14E+02	5.06E+10	1.14E+02
cis-1,2-dichloroethene	1.34E+03	7.51E+03	1.34E+03
cumene	3.79E+03	5.73E+04	3.79E+03
dibenzo(a,h)anthracene	3.35E+00	6.34E+11	3.35E+00
dibromochloromethane	1.50E+02	1.54E+02	1.50E+02
dichlorodifluoromethane	2.14E+03	7.01E+02	7.01E+02
dieldrin	1.22E+00	2.33E+04	1.22E+00
diethyl phthalate	1.39E+05	6.03E+09	1.39E+05
di-n-butylphthalate	1.74E+04	4.19E+08	1.74E+04

TABLE 14
Site-Specific Health-Based Soil Screening Values for
Organic Constituents Soil Exposure Pathways (mg/kg)
Page 3 of 5

Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
di-n-octylphthalate	3.49E+02	1.80E+10	3.49E+02
endosulfan	1.46E+02	2.14E+08	1.46E+02
endrin	7.33E+00	1.37E+08	7.33E+00
ethyl chloride	1.42E+05	1.57E+06	1.42E+05
ethylbenzene	NA	7.33E+05	7.33E+05
fluoranthene	6.97E+03	3.03E+10	6.97E+03
fluorene	6.94E+03	1.40E+08	6.94E+03
gamma-bhc	2.32E+01	2.63E+05	2.32E+01
heptachlor	2.87E+00	1.78E+03	2.87E+00
heptachlor epoxide	3.14E-01	1.35E+03	3.14E-01
hexachlorobenzene	9.69E+00	2.80E+03	9.69E+00
hexachlorobutadiene	2.24E+02	7.13E+04	2.24E+02
hexachlorocyclopentadiene	8.87E+01	9.79E+02	8.87E+01
hexachloroethane	1.73E+02	2.39E+05	1.73E+02
indeno(1,2,3-cd)pyrene	1.47E+01	1.23E+11	1.47E+01
isobutyl alcohol	4.81E+04	2.55E+06	4.81E+04
isophorone	1.85E+04	2.92E+07	1.85E+04
methoxychlor	8.71E+01	1.48E+09	8.71E+01
methyl methacrylate	1.06E+03	5.56E+04	1.06E+03
methylene bromide	1.51E+03	2.75E+04	1.51E+03
methylene chloride	1.07E+03	1.26E+03	1.07E+03
methyl-tert-butyl ether	NA	1.39E+06	1.39E+06
n-butylbenzyl phthalate	3.48E+03	6.52E+09	3.48E+03
nitroaniline, o-	8.07E+03	2.45E+06	8.07E+03
nitrobenzene	8.61E+01	1.78E+05	8.61E+01
nitrosodiphenylamine, p-	8.02E+02	1.03E+07	8.02E+02
n-nitrosodimethylamine	2.60E-01	1.38E-02	1.38E-02
n-nitroso-di-n-propylamine	2.48E+00	4.46E+02	2.48E+00
n-nitrosodiphenylamine	1.96E+03	4.80E+09	1.96E+03
o-chlorotoluene	3.14E+03	1.05E+05	3.14E+03
p-chloro-m-cresol	3.48E+04	NA	3.48E+04
pentachlorophenol	3.04E+02	3.09E+07	3.04E+02
phenol	1.04E+04	3.14E+09	1.04E+04
pyrene	2.35E+03	4.11E+10	2.35E+03
styrene	3.02E+05	7.58E+06	3.02E+05
tetrachloroethene	3.36E+02	7.52E+03	3.36E+02
toluene	3.12E+04	2.41E+05	3.12E+04
toxaphene	1.47E+01	9.16E+04	1.47E+01
trans-1,2-dichloroethene	2.68E+03	1.47E+04	2.68E+03

TABLE 14
Site-Specific Health-Based Soil Screening Values for
Organic Constituents Soil Exposure Pathways (mg/kg)
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Constituent	Construction Worker Initial Value	Commercial/ Industrial User Initial Value	Final Value
trichloroethene	1.05E+03	1.39E+03	1.05E+03
trichlorofluoromethane	1.03E+04	4.89E+04	1.03E+04
vinyl acetate	5.41E+03	2.31E+05	5.41E+03
vinyl chloride	5.16E+00	1.81E-01	1.81E-01
xylenes	3.26E+04	2.61E+07	3.26E+04

TABLE 14
Site-Specific Health-Based Soil Screening Values for
Inorganic Constituents Soil Exposure Pathways (mg/kg)
Page 5 of 5

Compound	Initial Value	ILM Background*	Final Value
aluminum	NT	3.63E+04	3.63E+04
antimony	9.05E+00	5.00E+00	9.05E+00
arsenic	8.87E+00	1.40E+01	1.40E+01
barium	2.52E+03	2.81E+02	2.52E+03
beryllium	1.56E+01	7.40E-01	1.56E+01
cadmium	1.64E+01	8.80E-01	1.64E+01
calcium	NT	3.80E+04	3.80E+04
chromium iii	3.22E+04	4.10E+01	3.22E+04
chromium vi	9.73E+01	NA	9.73E+01
cobalt	NT	2.00E+01	2.00E+01
copper	1.26E+03	5.30E+01	1.26E+03
cyanide	6.99E+02	NA	6.99E+02
iron	NT	6.05E+04	6.05E+04
lead	NT	1.11E+02	1.11E+02
mercury	6.78E+00	2.80E-01	6.78E+00
molybdenum	1.24E+03	2.30E+01	1.24E+03
nickel	2.39E+02	2.90E+01	2.39E+02
potassium	NT	8.26E+03	8.26E+03
selenium	1.82E+02	1.24E+03	1.24E+03
silver	1.30E+02	2.39E+02	2.39E+02
sodium	NT	1.96E+03	1.96E+03
thallium	NT	1.10E+01	1.10E+01
titanium	NT	1.95E+03	1.95E+03
vanadium	8.37E+01	8.20E+01	8.37E+01
zinc	8.73E+03	1.98E+02	8.73E+03

NOTES:

*ILM background values provided in Baseline Risk Assessment (G&M 1996).

NT = No Toxicity values available for calculation of HBRG

NA = Not Available.

TABLE 15
Remedial Excavations B37-RE-4 and B37-RE-5
Stockpile Soil Disposition Reference

Stockpile	Sample ID	Screening Criteria Summary*		Soil Location				
		Non-Haz Waste	Non-RCRA Haz Waste	Backfill Area Boundries**				
				North	East	South	West	Depth (bgs)
B37-RE4-AM	B37-RE4-SP53			2	J	3	M	5'
B37-RE4-AN	B37-RE4-SP54 B37-GS-178-1.5' B37-GS-178A-3' B37-GS-178B-5' B37-GS-180-1.5' B37-GS-180A-3' B37-GS-180B-5'	X	X	Disposed Off-Site as Non-RCRA Hazardous Waste				
B37-RE4-AO	B37-RE4-SP55 B37-GS-165-1.5'	X X		Disposed Off-Site as Non-Hazardous Waste				
B37-RE4-AP	B37-RE4-SP56 B37-GS-180E-3'	X	X	Disposed Off-Site as Non-RCRA Hazardous Waste				
B37-RE4-AQ	B37-GS-180E1-5' B37-GS-180E3-5'	X X		Disposed Off-Site as Non-Hazardous Waste				
B37-RE5-A	B37-RE5-SP1 B37-RE5-SP1A B37-GS-154-2.5'			2	J	3	L	5' - 3'
B37-RE5-B	B37-RE5-SP2			33	A.7	35.5	A.6	3' - 1'
B37-RE5-C	B37-RE5-SP3			1	A.5	9.5	A.1/A.2	6' - 4'
B37-RE5-D	B37-RE5-SP4			1	A.5	9.5	A.1/A.2	6' - 4'

* Blank space denotes soil samples which pass all screening criteria.

X Denotes stockpile disposition based on soil sample failing a screening criterion.

bgs = below ground surface

** Refer to Figure 14 for backfill locations